DOCUMENT RESUME

ED 131 634 EC 091 847

TITLE	A Prevention-Intervention Model for Students' Learning and Behavior Problems. Final Report, July 1974 - July 1975.
INSTITUTION	Nashville - Davidson County Metropolitan Public Schools, Tenn.; Tennessee State Dept. of Mental Health, Nashville. Child and Youth Development Inst.
SPONS AGENCY	Bureau of Education for the Handicapped (DHEW/OE), Washington, D.C.; Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C.
REPORT NO	71-7248
PUB DATE	Oct 75
NOTE	154p.; Parts of appendixes may reproduce poorly
EDRS PRICE	MF-$0.83 HC-$8.69 Plus Postage.
DESCRIPTORS	*Demonstration Programs; Elementary Education; *Handicapped Children; Intervention; Junior High Schools; Prevention; *Program Evaluation; *Regular Class Placement; Research Projects; *Residential Programs; *Teacher Education
IDENTIFIERS	*Prevention Intervention Project

ABSTRACT

Provided are the final evaluation results for the fourth year's activities of the Prevention-Intervention Project -- a program to train teachers to deal with the behavioral, academic, and other-problem difficulties of elementary and junior high school aged children in a normal school environment, and to field test a residential model for working with these same problems of children. Evaluation results are noted to show that behavioral objectives set by support teachers were met; that parents were supportive of the program; and that intensive, consultative input and evaluative feedback was needed for the support teacher teams to become optimally effective. A large part of the document consists of tables on evaluation results for such areas as individual interventions, group interventions, referrals for psychological services from experimental schools, elementary team case load characteristics, and success ratings for target cases by system. The remainder of the report is made up of appendixes which include a list of heuristic feedback checklist categories, a copy of the executive committee questionnaire, and copies of papers presented by W. Pyle, L. MacKay, B. Lewis, and R. Cantrell, at the 1976 Annual International Convention of the Council for Exceptional Children. (SBH)

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Final Report
of
Subcontracted Services
for
Program Consultation, Teacher Training
and
Research and Evaluation

Project No. 71-7248

July, 1974 - July, 1975

A Prevention-Intervention Model
for
Students' Learning and Behavior Problems

Cooperatively Funded by

ESEA Title III, Section 306;
State Title III;
Bureau for the Education of the
Handicapped through USOE
Bureau for the Education of the
Handicapped through Tennessee
Department of Education

Metropolitan Nashville-Davidson County Public Schools, Grantee

Tennessee Department of Mental Health
Central State Psychiatric Hospital
Child and Youth Community Services

Harold Jordan, M.D. Commissioner

Robert P. Cantrell, Ph.D.
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in charge of
Prevention-Intervention Project Subcontract

October, 1975

EC091,847

October 7, 1975

Mr. Wayne Pyle
Project Director
Prevention-Intervention Project
Burton School
4517 Granny White Pike
Nashville, Tennessee 37204

Dear Mr. Pyle:

Herein please find the final evaluation report of the Prevention-Intervention Project for year 4 as per sub-contract agreement between Metro and the Child and Youth Community Services, Tennessee Department of Mental Health.

Sincerely,

Robert P. Cantrell

Robert P. Cantrell, Ph.D.

RPC/ls

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PREFACE

This report provides the final evaluation results for the fourth and final year's activities of the Prevention-Intervention Project. These evaluation activities were part of the subcontracted services for training, consultation and evaluation to the Prevention-Intervention Project from the Child and Youth Community Services division of the Central State Psychiatric Hospital, Tennessee Department of Mental Health.

The purpose of the project was two-fold: 1) to train teachers who were indigenous to a given school system and who earned salaries commensurate with other teachers of the system to deal with the behavioral, academic and other-problem difficulties of early elementary and junior high school aged children in a normal school environment, and 2) by using the above-described population and setting, successfully field-test what was essentially a residential model for working with these same problems of children.

Only those who were a part of the project can be aware of the spirit of group problem-solving which pervaded all who were part of Prevention-Intervention. The complexities of coordinating three federal agencies, two state agencies and five separate school systems would have been impossible had it not been for the united commitment of all involved to make it work successfully. On May 30, 1975 at 1:50 p.m. the project was validated by an E.S.E.A. Title III validation team with a perfect rating. The teamwork had succeeded.

The evaluation results contained herein reflect the commitment to quality education that all individuals involved with the project demonstrated in their work; the fact that not all objectives were met is only testimony to the madnitude of the task set forth, not to the skills or perseverance of the staff involved. The formal project is terminated; the problem-solving process for kids in trouble continues through the people who collectively were once known as the Prevention-Intervention Project.

SECTION I

Executive Summary

The following is an abstract of the fourth year final evaluation of the support teachers' activities in the first four grades for two experimental elementary schools and the seventh, eighth and ninth grades for one experimental junior high school in each of five school systems. The impact of these activities on students, teachers, parents and communities for the fourth year is the subject of this report.

A total of 1245 students were directly affected in some manner by this program this year. Of this number, a total of 226 intensive cases were worked with individually and extensively. All individualized behavioral objectives set by elementary and junior high support teachers for behaviorally, academically and other-problems discordant students were met within the criterial level established for successful case completion. Likewise, all cases worked with through group intervention procedures were also completed successfully.

Parents were supportive of the program. Of those returning the questionnaires sent them, the majority commended the support teachers for the gains that their child had made as a result of program involvement.

Even with the ceiling effect on the measure of teacher knowledge of behavior principles used to measure teacher knowledge change as a function of the program, teachers continued to show increases in knowledge as they worked with support teachers in a team format.

SECTION II

Implications and Recommendations

It has appeared from the data generated over the past four years that support teacher teams require at least one year of intensive, consultative input and evaluative feedback if they are to become optimally effective. This pattern was replicated by the junior high support teacher group this past year. Considering the amount of time and money that was expended in enabling these teachers to reach this level of broadly based problem-solving ability even after they had received formal university training and certification, it is disturbing to consider the possible level of problem-solving ability of thousands of professionals in similar school resource roles for whom no objective feedback system has been initiated. It seems obvious from these accumulated results that increased numbers of personnel alone will not solve the problems children and teachers experience in the mainstream of public education; the process whereby problems are resolved must be given equal or even paramount importance.

Since this is the final report of the project the following recommendations seem important from not only this final year's results but also from results seen throughout the total project. First, the support teacher role, although nebulous in definition to some at times, is an important one for infusing new information and techniques into a faculty because the problem-solving orientation necessarily differs as a function of the specific problems being experienced at each particular work site. Secondly, vanguard work of this type requires a heavy investment in process-product evaluation as an independent source of feedback and encouragement to front-line personnel who will probably not receive such encouragement from their work settings loci. Thirdly, the time it takes for sufficient range of problems to occur and be resolved must be considered in any school-based intervention program of this type; usually, it seems, at least one year of follow-up is needed at a minimum before support teachers have had sufficiently varied and successful experiences to operate independently as a change agent. For the support teacher, group problem-solving activities are essential for morale-maintenance and continued motivation; otherwise, the persistent pressures to conform to group expectancies within the school faculty itself will gradually change the character of the support teacher role from a dynamic, directive, creative problem-solving effort to wahtever the school personnel decide they lack at that point in time.

SECTION III

Evaluation Results

The following results are presented under the respective product, process and management objectives for each component of the project. Performance objectives for each component will be presented in single-spaced, indented format at the beginning of the results for that objective. Evaluation results for elementary and junior high components will be presented and discussed separately for each objective.

Title III guideline enumeration will be followed throughout the report.

2. Component Objectives - Instructional Component

   a. Product Outcomes

      1) Eighty per cent of the behavioral objectives set for experimental elementary and junior high school target children whose behaviors have been considered discordant by their classroom teachers and support team (approximately 18 students per team per school year) will be achieved at the 80+% completion level at a mean time cost of three months or less per objective. These changes will be measured primarily by information from the heuristic information sheets and secondarily by the target child's classroom behaviors from the classroom observation schedule's recorded observations. Analyses will be conducted across all teams within each level (elementary vs. junior high) of project components. Thus, the decision for having met or failed to meet the objective will be made separately for the elementary and junior high components.

Individual Interventions

Table 1 presents the individual target case statistics across the areas of behavior, academic, other-problem discordances and their various combinations for elementary and junior high teams. The above objective for behavior only discordances was evaluated by examining all objectives for each case and computing the number of objectives met at the 80% or better completion level in ratio to the total number of objectives set for each case.

TABLE 1

Individual Target Cases (Closed) by Problem Category and School System

SYSTEM	Total Individual Cases	BEHAVIOR ONLY				ACADEMIC ONLY				OTHER PROBLEMS ONLY			
		N	% of total caseload	% of objectives met	Time mos./obj.	N	% of total caseload	% of objectives met	Time mos./obj.	N	% of total caseload	% of objectives met	Time mos./obj.
ELEMENTARY													
METRO	20	8	40.0	88.2	1.3	4	20.0	100	2.1	0			
ROBERTSON	45	4	8.9	83.3	3.1	31	68.9	90.0	3.6	0			
MEMPHIS	18	1	5.6	100	1.3	15	83.3	100	2.1	0			
HAMILTON	26	6	23.1	83.3	1.5	16	61.5	91.1	2.0	0			
TOTALS	109	19	17.4	86.7	1.7	66	60.6	93.4	2.6				
JUNIOR HIGH													
METRO	35	13	37.1	83.9	2.5	11	31.4	97.8	1.8	3	8.6	83.3	2.6
ROBERTSON	24	1	4.2	0	6.0	16	66.7	95.6	2.6	2	8.3	100	3.4
MEMPHIS	22	9	40.9	89.5	2.1	3	13.6	100	1.8	1	4.5	100	2.3
HAMILTON	36	6	16.7	75.0	1.9	23	63.9	81.9	2.5	0			
TOTALS	117	29	24.8	83.1	2.4	53	45.3	90.5	2.3	6	5.1	90.0	2.8
GRAND TOTALS	226	48	21.2	84.3	2.2	119	52.7	91.8	2.4	6	2.7	90.0	2.8

TABLE 1 (continued)

SYSTEM	Total Individual Cases	BEHAVIOR AND ACADEMIC				BEHAVIOR AND OTHER-PROBLEMS				ACADEMIC AND OTHER-PROBLEMS			
		N	% of total caseload	% of objectives met	Time mos./obj.	N	% of total caseload	% of objectives met	Time mos./obj.	N	% of total caseload	% of objectives met	Time mos./obj.
ELEMENTARY													
METRO	20	4	20.0	75.0	1.2	1	5.0	100	1.8	1	5.0	100	0.9
ROBERTSON	45	10	22.2	83.3	2.5	0				0			
MEMPHIS	18	2	11.1	50.0	1.9	0				0			
HAMILTON	26	3	11.5	90.9	2.7	1	3.8	0.0	1.8				
TOTALS	109	19	17.4	81.4	2.2	2	1.8	50.0	1.8	1	0.9	100	0.9
JUNIOR HIGH													
METRO	35	5	14.3	95.2	1.7	1	2.9	100	2.0	0			
ROBERTSON	24	4	16.7	100	3.3	0				0			
MEMPHIS	22	2	9.1	100	2.0	2	9.1	100	1.8	4	18.2	100	2.1
HAMILTON	36	3	8.3	85.7	2.0	1	2.8	100	2.3	1	2.8	100	1.4
TOTALS	117	14	12.0	94.6	2.0	4	3.4	100	2.0	5	4.3	100	1.7
GRAND TOTALS	226	33	14.6	87.5	2.1	6	2.7	87.5	1.9	6	2.7	100	1.6

TABLE 1 (continued)

SYSTEM	Total Individual Cases	BEHAVIOR, ACADEMIC AND OTHER PROBLEMS N	% of total caseload	% of objectives met	Time mos./obj.
ELEMENTARY					
METRO	20	2	10.0	100	1.9
ROBERTSON	45	0			
MEMPHIS	18	0			
HAMILTON	26	0			
TOTALS	109	2	1.8	100	1.9
JUNIOR HIGH					
METRO	35	2	5.7	100	1.6
ROBERTSON	24	1	4.2	50.0	7
MEMPHIS	22	1	4.5	100	1.4
HAMILTON	36	2	5.6	83.3	2.1
TOTALS	117	6	5.1	86.7	2.5
GRAND TOTALS	226	8	3.5	91.7	2.2

TABLE 1 (continued)

Grand Total: All Discordance Categories for Individual Target Cases

SYSTEM	Total Cases	% of Grand Total	% Objectives met at 80-100%	Time (mos.) per obj.
ELEMENTARY				
METRO	20	18.3	90.0	1.5
ROBERTSON	45	41.3	87.8	3.3
MEMPHIS	18	16.5	97.1	2.1
HAMILTON	26	23.9	88.9	2.1
TOTALS	109		90.1	2.4
JUNIOR HIGH				
METRO	35	29.9	92.7	2.0
ROBERTSON	24	20.5	93.0	2.9
MEMPHIS	22	18.8	95.1	2.0
HAMILTON	36	30.8	83.5	2.3
TOTALS	117		90.0	2.3
GRAND TOTALS	226		90.0	2.3

TABLE 2

GROUPED CASES BY PROBLEM CATEGORY AND SCHOOL SYSTEM

	Behavior Discordance Groups				Academic Discordance Groups			
System	N of Groups	N of Children	% obj. met at 80-100%	time (mos.) per objective	N of Groups	N of Children	% obj. met at 80-100%	time (mos.) per objective
ELEMENTARY								
METRO	2	44	100	1.0	3	38	100	2.7
ROBERTSON	1	83	100	3.0	0			
MEMPHIS	3	66	66.7	2.6	7	30	100	3.1
HAMILTON	0				15	141	87.1	2.3
TOTALS	6	193	80.0	2.2	25	209	92.5	2.6
JUNIOR HIGH								
METRO	2	29	100	1.3	1	25	100	2.0
ROBERTSON	0				4	51	80.0	5.6
MEMPHIS	2	68	75.0	1.9	2	64	100	2.0
HAMILTON	1	21	100	1.3	6	57	75.0	2.4
TOTALS	5	118	85.7	1.6	13	197	81.3	3.3

*Excludes children who are also individual TC's

TABL (continued)

System	Eco-System Discordance Groups				Behavioral & Academic Discordance Groups				Academic & Other Problems			
	N of Groups	N of Children	% obj. met at 80-100	time (mos) per objective	N of Groups	N of Children	% obj. met at 80-100	time (mos) per objective	N of Groups	N of Children	% obj. met at 80-100	time (mos) per objective
ELEMENTARY												
METRO	0				2	44	100	2.0	0			
ROBERTSON	0				2	110	100	2.8	0			
MEMPHIS	0				0				0			
HAMILTON	1	*	100	1.1	0				0			
TOTALS	1	*	100	1.1	4	154	100	2.4	0			
JUNIOR HIGH												
METRO	0				0				0			
ROBERTSON	0				2	42	50.0	4.4	0			
MEMPHIS	0				1	29	100	1.3	0			
HAMILTON	2	18	50.0	4.0	4	21	90.9	2.3	1	38	100	2.0
TOTALS	2	18	50.0	4.0	7	92	86.7	2.4	1	38	100	2.0

TAB (continued)

Grand Total: All Discordance Categories for Grouped Cases

System	Total Groups	% of Grand Total	Total N of Children	% of Grand Total	% Objectives met at 80-100%	time (mos.) per objective
ELEMENTARY						
METRO	7	19.4	126	22.7	100	2.2
ROBERTSON	3	8.3	193	34.7	100	2.8
MEMPHIS	10	27.8	96	17.3	88.9	3.0
HAMILTON	16	44.4	141*	25.4	88.2	2.2
TOTALS	36		556		92.6	2.4
JUNIOR HIGH						
METRO	3	10.7	54	11.7	100	1.5
ROBERTSON	6	21.4	93	20.1	71.4	5.2
MEMPHIS	5	17.9	161	34.8	87.5	1.8
HAMILTON	14	50.0	155	33.5	82.6	2.4
TOTALS	28		463		82.9	2.7

The mean time per objectives set (in months or portions thereof) was calculated by the following procedures. Time to completion for each objective was calculated by subtracting the computer week during which the objective was written from the computer week during which it was terminated (plus one week). Time for each objective was then added across individual cases for each team and then divided first by the total number of objectives and then by 4 to obtain the mean number of months to completion per objective.

Over all elementary teams this objective was achieved with 86.7% of their objectives met at a time cost of 1.7 months. The junior high component achieved this objective with 83.1% of their objectives met at a time cost of 2.4 months.

Group Interventions

Table 2 presents the results for group-oriented interventions for all discordance combinations encountered by teams during the fourth year of the project. Those elementary teams attempting to work with behaviorally discordant groups met 80% of their objectives with a mean time cost of 2.2 months. Those junior high teams attempting to work with behaviorally discordant groups met 85.7% of their objectives with a mean time cost of 1.6 months. This objective was considered met for both individual and group type cases. Analysis of Classroom Observation Schedule data was not completed by the date of this final report due to precipitous funding alterations accruing at the termination of project activities.

2) Eighty percent of the behavioral objectives set for experimental elementary and junior high school target children who are considered academically discordant by their teachers and support teachers (approximately 45 students per team per school year) will be achieved at the 80+% completion level at a mean time cost of three months or less per objective. These changes will be measured primarily by case information from heuristic information sheets and secondarily by achievement scores on the Metropolitan

Achievement Test. Target children's rate of achievement will be compared with control school students matched for age, I.Q. and/or pre-year achievement scores. Analyses will be across all teams within each level (elementary vs. junior high) of project components. Thus the decision for having met or failed to meet the objective will be made separately for the elementary and junior high components.

Individual Target Cases

Table 1 presents the Year 4 results for academic discordance target child cases where individualized strategies were utilized. This objective was met for the elementary component with 93.4% of their objectives being met at the 80+% completion level at a time cost of 2.6 months.

The junior high component met this objective with 90.5 percent of their objectives being met at the 80+% completion level at a mean time expenditure of 2.3 months.

Group Interventions

Table 2 presents the group intervention information for both elementary and junior high components. All elementary and junior high teams who worked with groups met their objectives within the criterial per cent completion level. All teams except Robertson junior high met the time criterion. Therefore, this objective was met for elementary componenent group cases but only partially met for junior high component group cases. Achievement analyses were not completed since fifth year project activities, including fall achievement testing, had been anticipated.

3) Eighty per cent of the behavioral objectives set for experimental elementary and junior high school target children who are experiencing discordance problems other than in behavioral or academic areas within the school situation (approximately 9 students per team per school year) will be achieved at 80+% completion level at a mean time cost of two months or less per objective. These objectives will be set by the support teachers in consultation with the teacher, principal, parents and/or other ecological agents.

> These changes will be measured primarily by the information from the heuristic information sheets and secondarily by questionnaires sent at year's end to the ecological agents. Analyses will be across all teams within each level (elementary vs. junior high) of project components. Thus the decision for having met or failed to meet the objective will be made separately for the elementary and junior high components.

Individual Interventions

Table 1 presents the results for individual case interventions. The elementary component received no referrals in this category. The junior high component met the objective at the criterial level as stated.

Group Interventions

Table 2 presents the results for group case interventions. The elementary component met this objective at the stated criterial levels. The junior high component did not meet this object.

4) Eighty per cent of the behavioral objectives set for experimental elementary and junior high school target children who are experiencing various combinations of behavioral, academic and other-problem discordances (approximately 36 students per team per school year) will be achieved at the 80+% completion level at a mean time cost of three months or less per objective for combinations of two discordance areas and four months for combinations of all three discordance areas. Behavioral objectives will be set by support teachers in consultation with each child's teacher, principal and/or parents or other ecological agents. These objectives will be measured primarily from the team's heuristic information sheets and secondarily from behaviors recorded on the classroom observation schedule.

Individual Interventions

Table 1 presents the break-down of the various behavior, academic and other-ecological problem combinations for children accepted as target children during the fourth year of the project. The elementary component teams, taken as a group, exceeded the criteria for this objective for all combination categories except "behavior and other-problems."

The junior high component met criterial levels for this objective in all of the combination discordance categories.

Group Interventions

Both elementary and junior high components met the criterial time and per cent completion levels for all categories of combination group interventions.

> 5) Target children worked with by support teachers will show 50% fewer teacher-initiated referrals for psychological services that will control school children. Referral records of special education and psychological services departments within each school system will provide frequency data to measure this objective.

Tables 3 and 4 present the data collected for this objective. Although experimental school teachers referred fewer students for special services than control school teachers, the criterion of 50% fewer referrals was not met. What effect the Tennessee mandatory legislation for handicapped children had on referral patterns this year for both experimental and control schools is not known, nor were there controls for this type of contingency.

This objective was not met at the criterial level specified.

b. Operational Process

> 1) Support teachers will accept behaviorally, academically and other-problem discordant target children with respect to the following conditions: 1) preference will be given during the first year to pupils of first grade teachers, to pupils of second grade teachers the second year, to pupils of first, second, third and seventh grade teachers the third year and to pupils of first, second, third and eighth grade teachers the fourth year, 2) preference will be given to children referred from a teacher who has not previously referred a child. The designation of intensive involvement will be defined as any target child for whom the support team, in consultation with the teacher, estimate the required direct time involvement will exceed 15 staff hours before the behavioral objectives are achieved. Consultative involvement is defined as an estimation of less than 15 staff hours of direct involvement by the support team before the objectives are achieved. Individualized charting procedures and heuristic information sheets will test this process.

Table 5 presents the target child caseload characteristics for the elementary teams for the fourth year of the project. For this table group cases are counted

TABLE 3
REFERRALS FROM P.I.P. EXPERIMENTAL SCHOOLS FOR PSYCHOLOGICAL SERVICES

System	School	1st grade Referrals N	2nd grade Referrals N	3rd grade Referrals N	4th grade Referrals N	Intellectual Handicap	Perceptive Handicap	Underachievement	Physical Handicap	Emotional Handicap	Other
METRO	EXPER. 1		1			1					
	EXPER. 2			1	2		1			3	
ROBERTSON	EXPER. 1	5	3	5	13			24	4		2
	EXPER. 2				3			2	1		
MEMPHIS	EXPER. 1	52	17	9	13	41	26	38	2	9	1
	EXPER. 2										
HAMILTON	EXPER. 1	1	2	3	1		3		1	2	1
	EXPER. 2	1			1		1				1
TOTALS		59	23	18	33	42	31	64	8	14	5

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TABLE 3
REFERRALS FROM P.I.P. EXPERIMENTAL SCHOOLS FOR PSYCHOLOGICAL SERVICES

System	School	7th grade Referrals N	8th grade Referrals N	9th grade Referrals N	Intellectual Handicap	Perceptive Handicap	Underachievement	Physical Handicap	Emotional Handicap	Other
METRO	EXPER. 1									
	EXPER. 2	4	15	8	11	2	5	2	5	
ROBERTSON	EXPER. 1	23					23	1		
	EXPER. 2		1	4	2		5			
MEMPHIS	EXPER. 1									
	EXPER. 2	3	2		4		2			
HAMILTON	EXPER. 1									
	EXPER. 2		1							
TOTALS		30	19	12	17	2	35	3	5	

TABLE 4
REFERRALS FROM P.I.P. CONTROL SCHOOLS FOR PSYCHOLOGICAL SERVICES

System	School	1st grade Referrals N	2nd grade Referrals N	3rd grade Referrals N	4th grade Referrals N	Intellectual Handicap	Perceptive Handicap	Underachievement	Physical Handicap	Emotional Handicap	Other
METRO	Control 1	2	1			2		1			
	Control 2	4	1	1						1	5
ROBERTSON	Control 1	6	4	6	3	2		19	1		
	Control 2	9	1	1	7			18	3		
MEMPHIS	Control 1	27	7	6	8	17	11	20	1	1	
	Control 2	5	8		1	3		13		1	1
HAMILTON	Control 1	5	10	3	2	1	17		1	2	3
	Control 2	3	4	6	2	10				3	2
TOTALS		61	36	23	23	35	28	70	6	8	11

TABLE 4
REFERRALS FROM P.I.P. CONTROL SCHOOLS FOR PSYCHOLOGICAL SERVICES

System	School	7th grade Referrals N	8th grade Referrals N	9th grade Referrals N	Intellectual Handicap	Perceptive Handicap	Underachievement	Physical Handicap	Emotional Handicap	Other
METRO	Control 1 Control 2	10	7		14	2	9	2	7	
ROBERTSON	Control 1 Control 2	21	2				22	1		
MEMPHIS	Control 1 Control 2	5	3		2	1	7	1		
HAMILTON	Control 1 Control 2	13	13	1	10	10			1	7
TOTALS		49	25	1	26	13	38	4	8	7

TABLE 5
ELEMENTARY TEAM CASE LOAD CHARACTERISTICS

TYPE CASE	METRO		ROBERTSON		MEMPHIS		HAMILTON		TOTALS	
	I[1]	C[2]	I[1]	C[2]	I[1]	C[2]	I[1]	C[2]	INTENSIVE	CONSULTATIVE
Behavior	6	4	4	1	4	0	1	5	15	10
Academic	6	1	28	3	7	15	4	27	45	46
Other Problems	0	0	0	0	0	0	1	0	1	0
Behavior and Academic	5	1	12	0	0	2	1	2	18	5
Behavior and Other Problems	0	1	0	0	0	0	1	0	1	1
Academic and Other Problems	1	0	0	0	0	0	0	0	1	0
Behavior, Academic and Other Problems	2	0	0	0	0	0	0	0	2	0
TOTAL	20	7	44	4	11	17	8	34	83	62

[1] Intentive: i.e., more than 15 staff hours involvement is anticipated

[2] Consultative: i.e., more than 15 staff hours involvement is anticipated

as one case regardless of the number of children involved. Individual and group cases are listed by types of problem(s).

Table 6 presents the target child caseload characteristics for the junior high teams for their second year of project operation. Again, in this table each group case by type of problem is only counted once regardless of the number of children involved.

Tables 7 and 8 present the total numbers of children involved in individual and group caseloads for team intensive and consultative involvement. Children designated as intensive cases are not included in the group count, although in some instances they may have been part of a class that was also worked with by support teams and the class teacher.

> 2) Support teachers, in consultation with the teacher and other ecological agents, will analyse the contingencies operating within the child's eco-systems according to the principles discussed during the pre-service training and will formulate intervention strategies as behavioral objectives within two weeks of the acceptance of the referral. Program consultants will agree with at least 80% of the analyses and intervention strategy information according to a checklist developed for this purpose. Included within the 80% program consultant agreement information will be at least one intervention objective judged by program consultants as pivotal to the resolution of the problem complex.

Year 4 elementary cases were selectively chosen (sampled) for feedback from program consultants. Table 9 presents the checklist data for this objective for each elementary team's intervention objectives for sampled cases. A copy of the checklist as used by program consultants is included in Appendix A. All elementary teams reached the criterial level of 80% agreement from the program consultants at the time of the final report with the exception of the Robertson team for intervention objectives. All elementary teams attained the criterial level of agreement for enactment and evaluation information. Overall, for the total elementary component this objective was met.

Table 10 presents the checklist data for this objective for each junior high team's intervention objectives. Essentially, only the Memphis team met this

TABLE 6
JUNIOR HIGH TEAM CASE LOAD CHARACTERISTICS

TYPE CASE	METRO		ROBERTSON		MEMPHIS		HAMILTON		TOTALS	
	I	C	I	C	I	C	I	C	INTENSIVE	CONSULTATIVE
Behavior	12	3	0	1	3	8	3	4	18	16
Academic	8	4	19	1	0	5	12	17	39	27
Other Problems	0	3	2	0	0	1	0	2	2	6
Behavior and Academic	4	1	6	0	1	2	4	3	15	6
Behavior and Other Problems	1	0	0	0	0	2	1	0	2	2
Academic and Other Problems	0	0	0	0	0	4	1	1	1	5
Behavior, Academic and Other Problems	2	0	0	1	0	1	2	0	4	2
TOTAL	27	11	27	3	4	23	23	27	81	64

TABLE 7

INDIVIDUAL TARGET CHILD CASES

(excluding groups)

SYSTEM	TEAM COMPONENT	INTENSIVE	CONSULTATIVE	TOTAL
METRO	Elementary	14	6	20
	Junior High	24	11	35
ROBERTSON	Elementary	41	4	45
	Junior High	21	3	24
MEMPHIS	Elementary	6	12	18
	Junior High	4	18	22
HAMILTON	Elementary	5	21	26
	Junior High	17	19	36
	Elementary	66	43	109
	Junior High	66	51	117

TABLE 8

INTENSIVE/CONSULTATIVE

GROUP CASES

SYSTEM		INTENSIVE # of Groups	INTENSIVE Number of Children Involved	CONSULTATIVE # of Groups	CONSULTATIVE Number of Children Involved	TOTAL # of Groups	TOTAL Number of Children Involved
METRO	Elementary	6	103	1	23	7	126
	Junior High	3	48	0	6	3	54
ROBERTSON	Elementary	3	193	0	0	3	193
	Junior High	6	93	0	0	6	93
MEMPHIS	Elementary	5	78	5	18	10	96
	Junior High	0	0	5	161	5	161
HAMILTON	Elementary	3	20*	13	121	16	141*
	Junior High	6	57	8	98	14	155
TOTALS	Elementary	17	394	19	162	36	556*
	Junior High	15	198	13	265	28	463
GRAND TOTALS		32	592	32	427	64	1019

* Approximately 1600 children in one special intensive group in Hamilton County were not included in this table to avoid inflating figures beyond meaningful comparison with other groups.

TABLE 9

Program Consultants' Checklist Results for Intervention Objectives (Elementary Component)

System	Frequency of Agreement Feedback	Frequency of Corrective Feedback	Total Feedback Statement	Percent Agreement
Metro	37	0	37	100
Robertson	14	5	19	73.7
Memphis	14	0	14	100
Hamilton	20	0	20	100
TOTALS	85	5	90	94.4

TABLE 10

Program Consultants' Checklist Results for Intervention Objectives (Junior High Component)

System	Frequency of Agreement Feedback	Frequency of Corrective Feedback	Total Feedback Statements	Percent Agreement
Metro	5	2	7	71.4
Robertson	14	22	36	38.9
Memphis	26	6	32	81.3
Hamilton	54	14	68	79.4
TOTALS	99	44	143	69.2

objective for intervention, and none of the junior high teams met this objective for enactment and evaluation case information.

Table 11 presents the percentage figures for case objectives written by support teams within two weeks of acceptance of the case referral. Only the Hamilton County junior high team met this portion of the objective.

Table 12 presents the per cent figures for program consultant agreements that at least one objective per case was pivotal for effective case resolution. All teams exceeded the 80% criterial level for this portion of the objective.

3) Support teachers will actualize the behavioral objectives for behaviorally, academically and other-problem discordant target children by using techniques outlined in the summer training workshop in consultation with program consultants. Support teachers' implementation strategies will be evaluated by the program consultants and maintained at or above an 80% agreement level. A checklist devised for use with the heuristic information sheets, sent to the evaluation office by support teachers, will evaluate this objective.

Table 13 presents the checklist results for program consultants' feedback to enactment and evaluation information sent in by elementary componenet support teams. All elementary teams met this objective.

Table 14 contains the checklist results for the junior high component support teams for the same objective. This objective was not met for the junior high component; however, it should be remembered that the junior high group was still considered to be in training during their second project year.

4) Evaluation office personnel will compare all target children as worked with by support teams with children from control schools in grades one through four and grades seven through nine for teacher referrals for psychological services. Frequency data from school records will be used for this analysis.

Data relevant to this process objectives are presented in Tables 3 and 4.

c. Management Process

1) The project evaluator will be responsible for the compilation and analysis of case information for feedback to support teams. Eighty percent of all feedback from program consultants on

TABLE 11

Percent Behavioral Objectives Written Within Two Weeks of Referral Acceptance

Elementary Teams	Total Cases	N Objectives W/in Two Wks	Percentages
Metro	27	18	66.7
Robertson	48	5	10.4
Memphis	28	18	64.2
Hamilton	42	23	54.8
TOTALS	145	64	44.1

Junior High Teams			
Metro	38	21	55.3
Robertson	30	18	60.0
Memphis	27	18	66.7
Hamilton	50	48	96.0
TOTALS	145	105	72.4

TABLE 12

Percentage of Terminated Cases in Which Program Consultants Judged at Least One Intervention as Pivotal to Case Resolution

ELEMENTARY

Systems	Pivotal	Non Pivotal	Terminated Cases
Metro	100	0	27
Robertson	97.9	2.1	48
Memphis	96.4	3.6	28
Hamilton	98	2	42

JUNIOR HIGH

Systems	Pivotal	Non Pivotal	Terminated Cases
Metro	97.4	2.6	38
Robertson	93.3	6.7	30
Memphis	99	1	27
Hamilton	96	4	50

TABLE 13

Program Consultants' Checklist Responses to Enactment and Evaluation Information (Elementary Component)

System	Frequency of Agreement Feedback	Frequency of Corrective Feedback	Total Feedback Statements	Percent Agreement
Metro	75	5	80	93.8
Robertson	23	2	25	92
Memphis	22	1	23	95.7
Hamilton	56	1	57	98.2
TOTALS	176	9	185	95.1

TABLE 14

Program Consultants' Checklist Responses to Enactment and Evaluation Information (Junior High Component)

System	Frequency of Agreement Feedback	Frequency of Corrective Feedback	Total Feedback Statements	Percent Agreement
Metro	10	3	13	76.9
Robertson	22	29	51	43.1
Memphis	32	11	43	74.4
Hamilton	38	17	55	69.1
TOTALS	102	60	162	63.0

> case information will be provided within three weeks of its receipt at the evaluation office. Measurement of this objective will be by tally count and calendar comparisons of dates received and dates for information sent.

In this fourth year of the project, program consultants selected elementary component cases (approximately 60% of the total caseload) for feedback to support teams. Feedback was provided for junior high support teams on all cases.

The following list provides the percent of all feedback from program consultants on case information returned within three weeks of its receipt at the evaluation office. Figures for the elementary component refer to selected cases.

SYSTEM	ELEMENTARY COMPONENT	JUNIOR HIGH COMPONENT
Metro	77.6	90.6
Robertson	78.6	68.6
Memphis	84.9	69.3
Hamilton	88.0	79.5
TOTALS	82.1	75.2

This objective was met for the elementary component overall, but not for junior high component.

> 2) The project evaluator will coordinate program consultants' consultative and training activities with support teams in cooperation with the project director and the local executive committee representatives. Ninety-five percent of these consultations will be satisfactory to the project director and executive committee representatives as measured on a questionnaire developed by the project director and secured annually from the primary members of the executive committee.

The following tables present the program consultants' contacts with the elementary and junior high component support teams this fourth project year. These contacts do not include workshop hours spent in Nashville.

Appendix B contains a copy of the questionnaire sent to members of the executive committee and the project director during June, 1975. The following summarizes the results of this polling. One hundred percent of the repsondees

TABLE 15
Program Consultants' Contacts with Elementary Component Support Teams

Metro

Consultant	By Phone	By Visit	Total Hours
MB	0	2	1 hr. 30 min.
MLC	12	1	2 hr. 33 min.
MH	6	3	6 hr. 51 min.
BL	5	4	7 hr. 1 min.
LMcK	5	9	10 hr. 10 min.
LMcL	1	0	10 min.
FR	2	3	2 hr. 55 min.
NS	0	1	1 hr. 45 min.
Total	31	23	32 hr. 55 min.

Robertson County

Consultant	By Phone	By Visit	Total Hours
MB	1	12	16 hr. 15 min.
MLC	11	10	25 hr. 3 min.
MH	3	4	8 hr. 26 min.
BL	6	10	30 hr. 45 min.
LMcK	1	4	8 hr.
LMcL	2	1	2 hr. 35 min.
FR	7	6	18 hr. 5 min.
NS	4	7	28 hr. 17 min.
Total	35	54	137 hr. 26 min.

Memphis

Consultant	By Phone	By Visit	Total Hours
MB	16	12	17 hr. 30 min.
MLC	6	1	2 hr. 12 min.
MH	2	1	7 hr. 10 min.
BL	3	2	11 hr.
LMcK	1	3	9 hr. 5 min.
LMcL	1	0	10 min.
FR	1	1	5 hr. 15 min.
NS	0	0	0
Total	30	20	52 hr. 22 min.

Hamilton County

Consultant	By Phone	By Visit	Total Hours
MB	2	2	1 hr. 30 min.
MLC	7	1	3 hr. 28 min.
MH	9	1	8 hr. 43 min.
BL	18	6	23 hr. 13 min.
LMcK	0	0	0
LMcL	1	0	18 min.
FR	9	3	6 hr. 40 min.
NS	2	1	6 hr.
Total	48	14	48 hr. 52 min.
Project Totals	144	111	271 hr. 35 min.

TABLE 16
Program Consultants' Contacts with Junior High Component Support Teams

Metro

Consultant	By Phone	By Visit	Total Hours
MB	3	20	22 hr. 35 min.
MLC	3	0	24 min.
MH	6	3	2 hr. 44 min.
BL	4	5	14 hr. 22 min.
LMcK	3	7	15 hr. 16 min.
LMcL	0	3	7 hr. 55 min.
FR	3	0	45 min.
NS	3	7	25 hr. 55 min.
Total	25	45	89 hr. 55 min.

Robertson County

Consultant	By Phone	By Visit	Total Hours
MB	3	3	10 hr. 25 min.
MLC	6	2	8 hr. 4 min.
MH	9	0	1 hr. 55 min.
BL	10	4	12 hr. 30 min.
LMcK	0	5	10 hr. 15 min.
LMcL	6	1	6 hr. 36 min.
FR	8	4	10 hr. 44 min.
NS	1	2	9 hr. 50 min.
Total	43	21	70 hr. 19 min.

Memphis

Consultant	By Phone	By Visit	Total Hours
MB	13	10	20 hr. 55 min.
MLC	6	0	1 hr. 44 min.
MH	1	1	1 hr. 25 min.
BL	0	0	0
LMcK	0	2	2 hr. 15 min.
LMcL	4	2	2 hr. 46 min.
FR	0	0	0
NS	2	0	1 hr. 25 min.
Total	26	15	28 hr. 29 min.

Hamilton County

Consultant	By Phone	By Visit	Total Hours
MB	6	1	5 hr. 45 min.
MLC	2	0	56 min.
MH	6	1	1 hr. 25 min.
BL	1	0	10 min.
LMcK	1	3	9 hr. 55 min.
LMcL	5	2	6 hr.
FR	3	1	7 hr. 55 min.
NS	2	1	2 hr. 55 min.
Total	26	9	35 hr. 1 min.
Project Totals	120	90	223 hr. 44 min.

rated consultation as "always" or "frequently" available when requested. All of the respondees rated consultation as being "very frequently" or "frequently" requested by their teams this year. All respondees rated consultation as being provided when requested as well as rating at least "some" team growth this year. All committee members felt that consultation with the program consultants played a "positive" role in this team growth.

When asked if teams were aware of role expectations and goals of the project and could plan strategies for referred children, all members felt they were at least "adequately" prepared.

All respondees rated program consultants as maintaining a consistent philosophy in working with team members this year at least "frequently", if not "always". All committee members rated visits and contacts made by the project's central offices as "often" or "adequate."

Based on these results, this objective was considered met at the proposed level for this year.

3) The project evaluator shall be responsible for monitoring the classroom observation activities as performed by each cooperating system's data collector. Each data collector will be expected to maintain an inter-observer agreement index of at least 80% using criterion raters from the central evaluation office as the rating standard. Both on-site video tapes and criterion rater on-site visitations will be used to maintain inter-observer agreement levels to at least 80% agreement across items to the satisfaction of the project evaluator.

Table 17 presents combined data from both on-site video tape and on-site criterion rater agreement checks. Although none of the data collectors maintained an 80%+ agreement index with the criterion rater across all observations, the Memphis data collector was closest to this criterion. This objective was not met at the specified criterion level.

3. Component Objectives - Staff Development Component

a. Product Outcomes

1) Support teams will maintain end-of-training levels or gain

TABLE 17

SUMMARY OF RELIABILITY RATINGS

Categories	Metro	Robertson	Memphis	Hamilton
Assessment #1				
Teacher	.75	-	.81	.80
Target Child	.58	.83	.92	.66
Consequence	.72	1.00	.92	.90
Assessment #2				
Teacher	.71	.87	.81	.59
Target Child	.77	.94	.92	.81
Consequence	.94	.98	.92	.94
Assessment #3				
Teacher	.55	.88	.78	.81
Target Child	.56	.88	.87	.84
Consequence	.41	.99	.82	.91
Assessment #4				
Teacher	.71	.78	.81	.59
Target Child	.55	.62	.82	.63
Consequence	.79	.92	.92	.87
Assessment #5				
Teacher	.62	.80	.87	.85
Target Child	.83	.76	.65	.77
Consequence	.75	.96	.98	.92
Assessment #6				
Teacher	.62	.68	.81	.74
Target Child	.67	.79	.94	.55
Consequence	.86	.85	.89	.87
Assessment #7				
Teacher	1.00	-	-	-
Target Child	.84	-	-	-
Consequence	.90	-	-	-

> in behavioral knowledge and attitudes toward children at the year-end testing as a function of the total number of different problem cases dealt with successfully. Success will be defined by program consultant judgement on a scale of 1 to 5. Support teams having the greatest number of difficult cases (defined as a difficulty rating of 4+ on a 5 point scale) dealt with successfully (defined as a success rating of 4+ on a 5 point scale) will make the greatest gains (defined as at least 20% higher than end-of-training scores) on the year-end testing.
>
> Support teams having the fewest number of different cases successfully dealt with will make the least amount of gain (defined as not more than 5% gain over end-of-training scores) over the year.
>
> Measurement instruments will be the Classroom Behavior Inventory, the Minnesota Teacher Attitude Inventory and teacher questionnaires sent to experimental school teachers at the end of each year of the project.

The following listing gives the pre-Year IV and post-Year IV Classroom Behavior Inventory means for both elementary and junior high support team components.

	Pre-Year IV Mean	Post-Year IV Mean
Elementary	45.8	45.6
Junior HIgh	46.1	47.0

A definite ceiling effect is present in these results prohibiting much growth possibility for any team member. Since it is only possible to obtain a raw score total of 60 on this measure, most support teachers were within 15 points of this total.

The following listing gives the pre-Year IV and post-Year IV Minnesota Teacher Attitude Inventory means for both elementary and junior support team components.

	Post-Training Mean	Post-Year IV Mean
Elementary	71.7	85.5
Junior High	70.8	74.0

Overall, there were no significant changes for either elementary or junior high components on these measures. Table 18 presents the results of the success and difficulty ratings of support team cases as performed by program consultants. By ranking each support team's mean gain on the CBI and correlating these results with the number of successful and difficult cases they dealt with this year a

TABLE 18

SUCCESS RATINGS FOR TARGET CASES BY SYSTEM

ELEMENTARY

	Case Success		Case Difficulty		Success x Difficulty		Rating Summary (1-10)	
System	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Metro	4.80	.44	3.14	.80	14.99	3.85	6.18	1.52
Robertson	4.55	.91	2.87	.63	13.07	3.89	5.46	1.47
Memphis	4.59	.81	2.73	.72	12.66	3.87	5.32	1.61
Hamilton	4.61	.67	2.85	.60	13.05	3.44	5.45	1.35
JUNIOR HIGH								
Metro	4.25	1.23	3.40	.74	14.11	4.58	5.82	1.72
Robertson	4.28	.92	3.51	.46	14.87	3.94	6.20	1.47
Memphis	4.62	.74	3.30	.83	15.17	4.41	6.26	1.72
Hamilton	4.03	1.13	2.83	.55	11.32	3.86	4.76	1.49

Spearman's rank order correlation coefficient of -.55 was obtained for the elementary component and a -.40 for the junior high component. The frequency count of successfully completed difficult cases is to be found in Table 19.

By ranking each support team's mean gain on the MTAI and correlating these results with the number of successful and difficult cases dealt with this year a Spearman's rank-order correlation coefficient of .65 was obtained for the elementary component and a coefficient of .20 for the junior high component.

Teacher Questionnaire Survey

Table 20 presents the results of the teacher questionnaire survey sent to experimental schools at the end of the fourth year of the project. The left-hand column of the table refers to the individual items from the questionnaire. Items were scored on a 1 to 5 point continuum. A "1" was assigned to ratings placed on the far left of each rating continuum and "5" was assigned to ratings placed on the far right of the rating continuum for each question. The results reported in the table reflect the means for all teachers responding to that question (for items IA through IVC). Items V A1 through V A6 refer to frequency counts of teacher request for additional information concerning various sub-components of pre-school workshops prior to next year's project activities.

On the average, all teachers except those from the Robertson COunty junior high component reported knowing at least a moderate amount about the formal purpose of the PIP project. Most teachers reported at least "occasional contact" with support teachers except in the Memphis elementary component. The Hamilton County elementary and Memphis junior high experimental school teachers reported an average of "weekly" contacts with their support teachers regarding children in their classes.

All elementary and junior high support teacher teams received high marks from their experimental school peers in their attitudes toward children and toward

TABLE 19

NUMBER OF DIFFICULT CASES SUCCESSFULLY RESOLVED AND TOTAL NUMBER OF CASES HANDLED

	METRO	ROBERTSON	MEMPHIS	HAMILTON
ELEMENTARY				
# of successful difficult cases	9	9	5	7
Total cases	27	48	28	42
JUNIOR HIGH				
# of successful difficult cases	14	11	9	7
Total cases	38	30	27	50

TABLE 20

SUMMARY OF EXPERIMENTAL TEACHERS ELEMENTARY (Grades 1, 2, 3, & 4) QUESTIONNAIRE RATINGS

System	Metro	Robertson	Memphis	Hamilton
I A	3.38	3.35	4.40	3.41
I B	3.33	3.00	2.73	4.18
I C	2.75	2.37	2.27	3.47
II A1	4.38	4.27	4.10	4.50
II A2	3.89	4.29	4.30	4.25
II A3	4.27	3.58	4.00	4.36
II B	4.47	4.35	4.43	4.63
III A	4.52	4.00	4.53	5.00
III B	4.58	4.23	4.60	5.00
IV A	3.23	3.25	2.44	3.50
IV B	3.08	2.63	3.83	3.66
IV C	4.07	3.75	4.16	4.00
V A1	3	1	7	3
V A2	5	12	13	3
V A3	0	0	3	1
V A4	6	3	7	1
V A5	11	9	12	6
V A6	1	3	7	3
	(S-24 R-22)	(S-25 R-20)	(S-51 R-30)	(S-41 R-32)

SUMMARY OF EXPERIMENTAL TEACHERS JUNIOR HIGH QUESTIONNAIRE RATINGS

I A	3.42	2.78	3.35	3.50
I B	3.15	3.00	4.12	3.79
I C	2.75	2.8	3.47	3.07
II A1	4.18	2.86	4.50	4.15
II A2	4.03	3.29	4.25	4.15
II A3	2.95	3.25	4.64	3.75
II B	4.20	3.5	4.63	4.21
III A	4.39	4.25	5.00	4.50
III B	4.63	4.5	5.00	4.86
IV A	3.75	2.4	3.38	3.00
IV B	4.00	1.0	3.50	
IV C	3.75	3.8	4.00	3.00
V A1	5	2	3	1
V A2	17	3	3	6
V A3	3	0	1	1
V A4	7	2	1	2
V A5	22	7	6	9
V A6	5	1	3	1
	(S-108 R-40)	(S-59 R-15)	(S-48 R-17)	(S-73 R-16)

their fellow teachers.

Data collectors once again were judged to be generally "unobtrusive" while performing their duties within the classrooms.

Teachers request that academic programming and behavior management be given increased emphasis this coming year during pre-school workshops.

Some of the teachers included extra comments regarding the project. Included below are some of these from both elementary and junior high teachers:

> "The program (as a whole) is very helpful, not only to students but teachers also. However, we don't know Evaluation Procedures."

> "I have no suggestions to offer other than the need for more PIP personnel in the school to help solve more of teacher's problems. I also feel the PIP team is doing a great job and the program has been most helpful to me."

> "I feel the program has been a success and will continue to benefit our children. I have enjoyed working with the PIP staff."

And some were not so complimentary as they were instructive:

> "Behavior of PIP students was disruptive. They felt that the PIP personnel stood between them and the teacher and that they could do anything and not be punished. Also some students did very little academically as they were praised extravagantly for what they did."

> "It is disruptive in that the students on this program seem to feel set apart from the classmates. This results in various problems discipline-wise and otherwise."

> "Would suggest eliminating program completely and putting these teachers in classrooms to cut loads in classroom."

In summary, because of ceiling effect on the Classroom Behavior Inventory measure of teacher knowledge of behavior principles this portion of the objective was only partially met. Teachers from experimental schools continued to be generally supportive of support team efforts.

2) Experimental school teachers will gain in behavioral knowledge and attitudes as a function of the amount of complexity of involvement that they have with support personnel in the resolution of discordnaces for target child. Experimental school teachers having a high degree of involvement as measured from heuristic information sheets' contact (information with upper quartile ratings on a frequency chart determining high degree of involvement and lower quartile ratings determining low degree) will obtain 20 percent higher scores on the

Classroom Behavior Inventory and the Minnesota Teacher Attitude Inventory post-tests than experimental group teachers having a low degree of involvement.

Tables 21 and 22 present the results for all experimental and control school teachers on the Classroom Behavior Inventory and the Minnesota Teacher Attitude Inventory for year IV of the project. Only teachers for whom a pre and post test could be obtained were included in this analysis.

The Metro and Robertson County experimental elementary school and the Memphis experimental junior high school teachers evidenced significant knowledge growth this year. It must be noted that the majority of the elementary and junior high control school teachers continue to show lower levels of behavioral principles knowledge than demonstrated by experimental school teachers.

Analyzing for teacher contacts with support teachers with respect to relative gains on the CBI, the following results were obtained. Experimental school teachers at the upper quartile of a frequency distribution of support teacher contacts (range: 22 to 162 contacts) evidenced a 16.4% gain in behavioral knowledge as measured by the CBI. Elementary teachers experiencing a low frequency of support teacher contacts (range: 1 to 2 contacts) evidenced a 12.9% gain in behavioral knowledge.

For the junior high component, experimental school teachers at the upper quartile of a frequency distribution of support teacher contacts (range: 28 to 273) evidenced an 0.9% gain in behavioral knowledge while junior high teachers experiencing a low frequency of support teacher contacts (range: 1 to 2 contacts) evidenced a 18.4% gain in knowledge. Although these results were in the predicted direction for knowledge they were not achieved at the predicted accomplishment level. This objective was not met.

b. Operational Process

1) Program consultants will address written consultative feedback to support teachers on areas of the heuristic information where there is incomplete or inappropriate information

TABLE 21

MEAN TEACHER SCORES ON CBI WITH t - TESTS OF PRE-POST YEAR IV DIFFERENCES

ELEMENTARY TEACHERS

SYSTEMS	SCHOOL	PRE-YEAR IV		POST YEAR IV		df	t
		Mean	S.D.	Mean	S.D.		
METRO	Experimental 1	27.6	5.0	29.0	7.8	7	0.86
	Experimental 2	25.4	9.1	30.8	9.1	11	2.25*
	Control	24.0	9.4	26.6	8.7	8	1.42
ROBERTSON	Experimental 1	31.4	7.7	36.3	5.9	7	2.42*
	Experimental 2	30.1	6.3	31.9	6.8	9	1.23
	Control	18.6	5.1	17.4	7.0	7	-0.74
MEMPHIS	Experimental 1	19.2	6.4	19.6	6.6	30	0.57
	Experimental 2	23.4	11.3	25.1	13.8	7	0.87
	Control	18.0	7.2	19.2	6.7	27	1:43
HAMILTON	Experimental 1	20.5	5.9	23.0	6.8	13	1.48
	Experimental 2	24.7	9.0	27.2	9.8	20	1.65
	Control	25.6	10.1	24.8	6.3	11	-0.37

JUNIOR HIGH TEACHERS

SYSTEMS	SCHOOL	PRE-YEAR IV		POST YEAR IV		df	t
		Mean	S.D.	Mean	S.D.		
METRO	Experimental	22.6	9.4	22.9	8.6	34	0.19
	Control	19.7	7.5	21.5	8.0	15	1.61
ROBERTSON	Experimental	20.3	6.9	22.0	6.8	22	1.12
	Control	21.6	7.8	23.3	8.1	18	1.01
MEMPHIS	Experimental	19.1	6.1	22.1	7.7	19	2.64*
	Control	18.3	6.4	18.9	7.2	11	0.33
HAMILTON	Experimental	25.7	10.3	24.9	9.1	18	-0.68
	Control	19.8	6.3	22.1	6.8	37	2.35*

*P $< .05$

TABLE 22

MEAN TEACHER SCORES ON THE MTAI WITH

t - TEST OF PRE POST CHANGES

ELEMENTARY SCHOOLS

SYSTEMS	SCHOOL	PRE-YEAR IV Mean	PRE-YEAR IV S.D.	POST YEAR IV Mean	POST YEAR IV S.D.	df	t
METRO	Experimental 1	19.8	41.3	26.1	32.0	7	0.82
	Experimental 2	41.9	33.1	41.3	34.7	10	-0.10
	Control	27.8	28.8	- 1.3	38.4	8	-1.42
ROBERTSON	Experimental 1						
	Experimental 2	29.3	36.6	39.8	27.3	9	1.38
	Control	20.5	26.7	11.4	34.7	7	- .83
MEMPHIS	Experimental 1	25.2	30.7	16.9	37.8	30	-1.42
	Experimental 2	31.5	45.9	46.1	34.4	9	1.39
	Control	16.8	32.7	11.8	40.1	27	-1.11
HAMILTON	Experimental 1	22.1	24.6	32.2	37.6	13	0.48
	Experimental 2	36.4	28.9	26.4	24.6	20	-2.28
	Control	31.8	31.6	34.7	30.5	11	0.53

JUNIOR HIGH SCHOOLS

SYSTEMS	SCHOOL	PRE-YEAR IV Mean	PRE-YEAR IV S.D.	POST YEAR IV Mean	POST YEAR IV S.D.	df	t
METRO	Experimental	1.43	42.7	1.83	40.0	34	0.78
	Control	-2.00	33.8	-0.13	34.5	15	0.20
ROBERTSON	Experimental	-10.9	30.5	-8.9	34.9	21	0.84
	Control	31.2	33.0	20.9	32.4	15	-1.53
MEMPHIS	Experimental	5.4	36.2	-1.6	38.0	19	0.48
	Control	20.8	41.0	21.4	45.3	11	0.07
HAMILTON	Experimental	15.7	33.9	25.1	30.2	18	1.25
	Control	9.6	37.4	4.9	38.4	36	-1.29

with respect to checklist areas. This feedback will be sent within three weeks of its receipt at the evaluation office. Written communications between program consultants and support personnel will be monitored for a one-to-one correspondence between checklist areas and written consultative comments to the satisfaction of the project evaluator in consultation with executive committee members and the project director.

Data corresponding to this objective have been presented. As stated earlier, elementary support teams received feedback on selected cases while junior high teams received feedback on all cases. Table 23 presents the case success data for the elementary component found in Table 18 with a breakdown between selected and non-selected cases. The non-selected cases were generally considered less difficult; nevertheless, the high level of success was maintained. These results reflect the anticipated generalization effects of prior consultative feedback on support teachers' independent casework.

2) Support teams will be able to analyze contingencies operating within the behavioral, academic and other ecological systems of children referred from the local school staff and will be able to prepare behavioral objectives based upon this analysis following the six week pre-service training period.

At least one of the product objectives prepared by each support team for each case will be pivotal to the solution of the discordnace as confirmed from program consultant feedback. The team will maintain at least 80% overall agreement with the consultant on intervention objectives and enactment strategies as reported on the checklist developed for this purpose.

Data for this objective are presented in Tables 9 through 14. Ratings of pivotal objectives are to be found in Table 12. All teams met the criterion for pivotal objectives. Criterial levels for intervention objectives and enactment and evaluation activities were met by the elementary component but not by the junior high component. In summary, this objective was met for the elementary component but only partially met for the junior high component.

c. Management Process

1) The project evaluator will be responsible for the compilation and analysis of case information for feedback to support teams. Eighty percent of all feedback from program consultants on

TABLE 23

SUCCESS RATINGS FOR SELECTED AND NON-SELECTED TARGET CASES BY SYSTEMS

ELEMENTARY

SELECTED	Case Success		Case Difficulty		Success x Difficulty		Rating Summary (1-10)	
System	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
METRO	4.77	.47	3.33	.67	15.85	3.32	6.55	1.26
ROBERTSON	4.57	1.05	3.15	.61	14.20	4.47	5.86	1.67
MEMPHIS	4.49	.92	2.78	.69	12.71	3.97	5.33	1.62
HAMILTON	4.66	.62	2.99	.55	13.84	3.10	5.76	1.26
				JUNIOR HIGH				
NON-SELECTED								
METRO	4.90	.22	2.30	.84	11.25	4.14	4.60	1.67
ROBERTSON	4.53	.80	2.68	.59	12.11	3.09	5.11	1.21
MEMPHIS	4.89	.20	2.57	.82	12.52	3.85	5.28	1.70
HAMILTON	4.55	.72	2.70	.62	12.25	3.66	5.14	1.39

case information will be provided within three weeks of its receipt at the evaluation office. Measurement of this objective will be by tally count and calendar comparisons of dates received and dates information is returned.

Data for this objective have been presented earlier in this report. This objective was met for the elementary team cases, but not for the junior high team cases.

2) The project evaluator will coordinate program consultants' consultative and training activities with support teams in cooperation with the project director and the local executive committee representatives. Ninety-five percent of these consultations will be satisfactory to the project director and executive committee representatives as measured by an annual polling of these individuals on a questionnaire to be developed by the project director.

Data for this objective have been presented earlier in this report. This objective was met.

4. Component Objectives - Community Involvement Component

a. Product Outcomes

1) Parents of target children whom the support team contacted as a function of their intervention procedures will express favorable attitudes and knowledge measures in direct ratio to the number of contacts support teams made with those parents, the complexity of the problem and the amount of direct involvement the parents had in the change strategy. Maximal involvement will be defined as the upper quartile of a frequency distribution of parent contacts while minimal involvement will be defined as the lower quartile of the same frequency distribution. Parents having maximal involvement in the change processes will show 50% higher attitude and knowledge indices than parents having minimal involvement with support teams. The attitude and knowledge dimensions will be measured by parent questionnaire items administered at termination of support team involvement with the child, while amount of involvement information will be measured by the number of separate parent contacts as reported on the heuristic information sheets for the particular target chodren involved.

Appendix C contains a copy of the parent questionnaire sent to 109 parents of elementary target children and 103 parents of junior high target children. These were the parents for whom the evaluation office received names and addresses from the teams. Table 24 describes the parent questionnaire survey

TABLE 24

PARENT QUESTIONNAIRE SURVEY

Elementary

	# of Questionnaires Sent	# Returned	%
Metro	14	6	42.9
Robertson	13	3	23.1
Memphis	22	6	27.1
Hamilton	60	34	56.7
TOTALS	109	49	45.0

Junior High

	# of Questionnaires Sent	# Returned	%
Metro	27	4	14.8
Robertson	32	9	28.1
Memphis	16	6	37.5
Hamilton	28	6	21.4
TOTALS	103	25	24.3

process.

As can be seem from comparing questionnaire information from table 24 with the parent contact information to be found in Tables 25 and 26 following, too few parents responded to this survey for a very stable or accurate picture of total parent involvement by support teams.

Only the Metro team demonstrated an acceptable level of parent involvement during this fourth year of the project.

In the junior high component parent contacts appeared adequate, continuing the pattern of parent involvement initiated during the junior high component's project activities.

Tables 27 and 28 present the results of a content analysis of the parent questionnaire survey. The majority of parents returning the questionnaire considered the experience "very helpful" in both the elementary and junior high school components. Additionally, the majority of parents expressed at least "somewhat satisfactory" if not "very satisfactory" feelings about their child's school experience this year. The following are samples of parents' additional comments on the parent questionnaire forms:

> "It is a program I feel should be in every school in Tennessee..."
>
> "We, as J.'s parents, feel very fortunare that he had the opportunity to participate in such a worthwhile and profitable reading program."
>
> "I would like if all my kids were in the Prevention-Intervention Project."
>
> "....like all newcomers we have problems helping S. adjust to a new life... I knew he had problems that went back to my first marriage. Mrs. ___ was very understanding. She pointed out things that I was doing wrong in a very tactful manner....It always helps when someone reaches out and says, I care."

In accordance with this objective a frequency distribution of parent contacts within each system was calculated and parent responses to questions of how helpful the experience had been (question 4) and their feelings about their child's school experience this year (question 5) were scored and compared

TABLE 25

ELEMENTARY COMPONENT YEAR 4

Parent contact Information

TEAM	METRO	ROBERTSON	MEMPHIS	HAMILTON	TOTALS
Total cases with parent contacts	18	11	9	17	53
Total cases (Individual & group)	27	48	28	43	146
% of total cases	66.7	22.9	32.1	39.5	36.3
Frequency of parent contacts	171	94	37	198	461
Average frequency of contacts	9.5	8.5	4.1	11.6	8.7
Average duration of contacts (minutes)	27.0	35.1	33.0	22.0	25.8

TABLE 26

JUNIOR HIGH COMPONENT YEAR 4

Parent contact Information

TEAM	METRO	ROBERTSON	MEMPHIS	HAMILTON	TOTALS
Total cases with parent contacts	21	14	18	27	80
Total cases (Individual & group)	38	30	27	50	145
% of total cases	55.3	46.7	66.7	54.0	55.2
Frequency of parent contacts	209	76	177	75	537
Average frequency of contacts	10.0	5.4	9.8	2.8	6.7
Average duration of contacts (minutes)	24.0	27.9	21.0	23.7	23.5

TABLE 27

PARENT QUESTIONNAIRE RESULTS: CONTENT ANALYSIS - YEAR 4

Elementary School Components

	FREQUENCIES			
SYSTEMS	METRO	ROBERTSON	MEMPHIS	HAMILTON
1. Reasons for Contact				
a. Misunderstood the question	1	1		3
b. Learning problem	3	1	2	5
c. Behavior problem (adjustment, emotional, etc.)	1			4
d. Child's teachers' suggestion				5
e. Child's sensory and/or motor disorder				
f. No response				
g. Other	1	1	4	17
2. Areas worked on together				
a. Misunderstood question			1	1
b. Child's behavioral problem	2			3
c. Child's learning problem	4	1		9
d. Parent's own problem				1
e. Cooperative effort across individuals		2	1	18
f. Cooperative effort with agency(ies)				
g. No response			4	1
h. Other				2
3. Learned from the experience				
a. No response			4	2
b. Growth statement re: child	1		1	4
c. Growth statement re: parent		1		2
d. Cooperative effort statement	2	2		11
e. Child needed "more discipline"				
f. That the child's difficulty could be helped				16
g. Other	3		1	

Elementary continued:

	FREQUENCIES			
SYSTEMS	METRO	ROBERTSON	MEMPHIS	HAMILTON
4. Helpful experience or not				
a. Very helpful	4	2	3	26
b. Somewhat helpful	2	1		6
c. Not sure				
d. Not very helpful				
e. Not helpful at all				
f. No response			3	2
5. Feelings about child's school experience				
a. Very satisfactory	4	3	3	26
b. Somewhat satisfactory	2			5
c. Not sure				
d. Not very satisfactory				2
e. Not satisfactory at all			1	
f. No response			2	1
Additional Comments:				
Never contacted			2	
Pleased with Child's progress				3
Commendation for Support Teacher(s)	1			5
Expressions of hoping program continues or gratitude to the program	1		1	16
Dissatisfaction with child's regular teacher or school				3
Satisfaction with child's regular teacher or school				1
No response	2	2	2	6
Child should have made more progress			1	
Other	1	1		
Total # of Questionnaires Sent	14	13	22	60
Total # of Questionnaires Received	6	3	6	34

TABLE 28

PARENT QUESTIONNAIRE RESULTS: CONTENT ANALYSIS - YEAR 4

Junior High Component

	FREQUENCIES			
SYSTEM	METRO	ROBERTSON	MEMPHIS	HAMILTON
1. Reasons for Contact				
a. Misunderstood the question		1		
b. Learning problem	2	2	2	4
c. Behavior problem (adjustment, emotional, etc.)		3	2	
d. Child's teachers' suggestion		2	1	
e. Child's sensory and/or motor disorder				
f. No response	1			
g. Other	1	1	1	2
2. Areas worked on together				
a. Misunderstood question				1
b. Child's behavioral problem		2	2	1
c. Child's learning problem	2	4	1	1
d. Parent's own problem				
e. Cooperative effort across individuals		1	2	
f. Cooperative effort with agency(ies)			1	
g. No response	2	1		
h. Other		1		3
3. Learned from the experience				
a. No response	2	2		
b. Growth statement re: child			1	2
c. Growth statement re: parent				
d. Cooperative effort statement		1	4	
e. Child needed "more discipline"		2		
f. That the child's difficulty could be helped	2	3	1	
g. Other		1		4

Junior High continued:

	FREQUENCIES			
SYSTEM	METRO	ROBERTSON	MEMPHIS	HAMILTON
4. Helpful experience or not				
a. Very helpful	2	7	5	2
b. Somewhat helpful		1	1	1
c. Not sure				
d. Not very helpful				
e. Not helpful at all	1			1
f. No response	1	1		2
5. Feeling about child's school experience				
a. Very satisfactory		5	4	2
b. Somewhat satisfactory	1	2	1	
c. Not sure				
d. Not very satisfactory	1	2	1	
e. Not satisfactory at all	1			2
f. No response	1			2
Additional Comments:				
Never contacted	1			1
Pleased with Child's progress				
Commendation for Support Teacher(s)		3	2	2
Expressions of hopeing program continues or gratitude to the program	1	1	2	1
Dissatisfaction with child's regular teacher or school		1		
Satisfaction with child's regular teacher or school			1	
No response		2	1	1
Child should have made more progress	1	2		1
Other	1			
Total # of Questionnaires Sent	27	32	16	28
Total # of Questionnaires Received	4	9	6	6

for frequency contacter parents (upper quartile) versus infrequently contacted parents (lower quartile). For the elementary component both frequently and infrequently contacts parents expressed higher ratings on question 4 and on question 5, than did low frequency of contact parents.

Likewise, for the junior high component both high and low frequency of contact parents gave high ratings for both questions 4 and 5. The predicted differential ratings between frequently contacted and infrequently contacted parents did not occur. Since these results exceeded the predicted outcomes, this objective should be considered met.

> 2) Members of the Community Advisory Council in each local system will express favorable attitudes and knowledge increases at year's end as a function of their involvement with the activities in their support teachers locally. Community Advisory Council members responding to at least five cases annually will show 50% more favorable attitudes and knowledge than Community Advisory Council members responding to one or fewer cases annually. Measurement of these attitudes and knowledges shall be determined from a questionnaire to be formulated by the project evaluator and approved by the executive committee. Council member involvement shall be reported by the support teams on the heuristic information sheets.

Pursuant to this objective, questionnaires (Appendix D) were sent to advisory council members in Memphis, Chattanooga, and Robertson County. Metro has no active advisory council; the concept did not receive active support from the Metropolitan Nashville Education Association (MNEA) representative. Community Advisory Council members responding to at least five cases annually gave more positive and highly positive statements about the program than members responding to four or fewer cases during the year, although even their statements were generally supportive or even positive. This objective was considered to have been met.

b. Operational Process

1) Support teachers will involve the target child's parents in

> the resolution of behavioral, academic and other problem-discordances when support teachers, in consultation with the target child's teacher and principal, judge that this involvement should be attempted. Support teachers will make an average of three contacts per case where parent contact is deemed desirable. These parental contact activities will be monitored by heuristic information sheet data with support teachers' decisions being confirmed by written communication from program consultants.

The following tables provide information on support team contact information for parents, teachers, principals and community agents, as well as contacts made with target children themselves. Some of these averages, such as those for contacts with target groups, teachers, community agents and contacts with others are inflated to the extent that time spent with individual members of groups are counted more than once for group meetings.

Tables 29 and 30 present contact information for elementary and junior high support team components. Discrepancies for total N's of cases between this table and other appearing in this report (for some teams) are due to differences in the ways in which some cases were grouped for contact information reports for groups versus some individual children. Teams continued to appear more and more similar in their contact time patterns.

It is interesting to note that although mean teacher contacts per case are higher for almost all teams than for the elementary component last year, there was not a continuance of knowledge growth on the part of teachers as a function of these contacts. Part of this appears to be due to the continuing difficulty experienced in "pin-pointing" of key target child issues to be worked with by teams and teachers.

According to the parameters used as criteria for meeting this objective, both components approached meeting this objective but neither did so at the stated criterial level.

> 2) Support teachers shall confer with their Community Advisory Council members to involve their consultation in the development of program strategies for target children. The Council

TABLE 29
ELEMENTARY SUPPORT TEAM CONTACT INFORMATION-INDIVIDUAL/GROUP

SYSTEM	Total Cases	Contacts with Target Children		Contacts with Target Groups[1]		Contacts with Parents		Contacts with Teachers[2]		Contacts with Principals		Community Agents Contacts		Contacts with Others		Contacts with Tutors	
		Freq.	Time	Freq.	Time	Freq.	Time	Freq.	Time	Freq.	Time	Freq.	Time	Freq.	Time	Freq.	Time
METRO SUM	27	551	17895	217	13070	171	4615	759	29445	178	6360	132	4045	189	7415	108	5790
mean/time* contact		32.5		60.2		27.0		38.8		35.7		30.6		39.2		53.6	
ROBERTSON SUM	48	608	18395	117	9115	94	3300	519	15681	21	770	3	285	276	9165	20	835
mean/time contact		30.8		77.9		35.1		30.2		36.6		95.0		33.2		41.7	
MEMPHIS SUM	28	329	8410	165	11380	37	1220	496	13335	41	510	2	25	136	3770	23	420
mean/time contact		25.6		69.0		33.0		26.9		12.4		12.5		27.7		18.3	
HAMILTON SUM	43	1039	22595	297	9470	198	4360	1452	17411	115	2100	50	2315	365	7475	103	1510
mean/time contact		21.7		31.9		22.0		12.0		18.3		46.3		20.5		14.7	
TOTALS SUM	146	2368	62155	722	37305	461	11910	3048	68306	347	9410	187	6670	825	23040	241	7895
mean/time contact		26.2		51.7		25.8		22.4		27.1		35.7		27.9		32.8	

1. Individual cases worked with as a group.
2. Inflated time estimate, since the time for individual contacts was included in this sum.
* Time is expressed in minutes.

TABLE 30
JUNIOR HIGH SUPPORT TEAM CONTACT INF[illegible]ATION-INDIVIDUAL/GROUP

SYSTEM	Total Cases	Contacts with Target Children		Contacts with Target Groups[1]		Contacts with Parents		Contacts with Teachers[2]		Contracts with Principals		Community Agents Contacts		Contacts with Others		Contacts with Tutors	
		Freq.	Time	Freq.	Time	Freq.	Time	Freq.	Time	Freq.	Time	Freq.	Time	Freq.	Time	Freq.	Time
METRO SUM	38	367	11970	55	2835	209	5010	695	23745	136	4550	58	2855	251	16095	141	4655
mean/time* contact		32.6		51.5		24.0		34.2		33.5		49.2		61.7		33.0	
ROBERTSON SUM	30	491	20505	254	16485	76	2120	783	37810	27	980	2	25	311	16495	25	1195
mean/time contact		41.8		64.9		27.9		48.3		36.3		12.5		53.0		47.8	
MEMPHIS SUM	27	482	14610	309	11215	117	3720	1219	24975	98	1025	44	645	208	4105	21	785
mean/time contact		30.3		36.3		21.0		20.5		10.5		14.7		19.7		37.4	
HAMILTON SUM	50	963	25130	330	13910	75	1775	658	13770	59	1030	151	4660	228	5125	84	1645
mean/time contact		26.1		42.2		23.7		20.9		17.5		30.9		22.5		19.6	
TOTALS SUM	145	2302	72215	948	44445	537	12625	3355	100300	320	7585	255	7745	1008	41820	271	8280
mean/time contact		31.4		46.9		23.5		29.9		23.7		30.4		41.5		30.6	

1. Individual cases worked with as a group.
2. Inflated time estimate, since the time for individual contacts was included in this sum.
* Time is expressed in minutes.

(two members selected locally) shall respond to at least five cases annually in each location as determined by a questionnaire to be developed by the project evaluator and approved by the Executive Committee.

According to Community Advisory Council members responding to the questionnaire, all of those responding had had contact regarding four or more children being served by their support teams. Since only part of the systems have developed active Community Advisory Councils this objective could not have been met this year as it is currently written.

C. Management Process

1) The project evaluator will coordinate program consultants' consultative and training activities with support teams in cooperation with the project director and the local executive committee representatives. Ninety-five percent of these consultations will be datisfactory to the project director and executive committee representatives as measured by polling of these individuals at executive committee year-end meetings..

Appendix B contains a copy of the questionnaire sent to members of the executive committee and the project director during June, 1975. The results of this polling have been discussed earlier in this report.

Taking responses to the items on the questionnaire in composite as an indicator of satisfactory consultation during the year, this objective was met at the proposed criterial level.

5. Administrative Component

A. Product Outcomes

1) Contractual agreements, reports, and audits directed to the requiredments of USOE and other federal sources, Tennessee Department of Education, the local cooperating school system and other appropriate agencies as determined by a review of the manual for project applicants and grantees, consultation with the USOE project officer, requests from the project executive committee, and the Assistant Superintendent of Program and Staff Development of the LEA, will be formulated by the project director to the satisfaction of the requirements of the various agencies as determined by acceptance of the contracts, reports, and audits by the agency representatives and the project executive committee and recorded on a timeline to be formulated each year by the project director.

Information for this objective was not determined or requested from the project director by the evaluation office for the final report.

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SECTION IV

APPENDICES

APPENDIX A

HEURISTIC FEEDBACK CHECKLIST CATEGORIES

HEURISTIC FEEDBACK CHECKLIST CATEGORIES

The enclosed feedback statements were gleaned from the first year's case staffing reports and grouped into the following factors:

Factor A: Information is Incomplete, Vague, Insufficient
Factor B: Requests for Additional Analysis, Planning Forms, ETC.
Factor C: Need for Strategy Change Indicated
Factor D: Directive Suggestions (Program for Intra-School)
Factor E: Directive Suggestions (Program for Extra-School)
Factor F: Home Milieu Suggestions
Factor G: Status and Termination Information
Factor H: Commendations (Behavioral)
Factor I: Commendations (Academic)
Factor J: Commendations (Other-Ecological)
Factor K: Commendations (Miscellaneous)
Factor L: Information received

Each feedback statement regarding heuristic information we have received from you will be accompanied by a letter code plus a number which can be traced to a particular statement within. Each factor has room for expansion as necessary.

This, of course, is a first approximation and is subject to change depending on the feedback I receive from support teachers and program consultants.

FACTOR A: INCOMPLETE, VAGUE, INSUFFICIENT

CODE	ITEM
	The following heuristic report form section(s) is (are) incomplete. Please complete the following of:
A1	Section I Page________ Item_________
A2	Section II Page________ Item_________
A3	Section III Page________ Item_________
A4	Section IV Page________ Item_________
A5	Section V Page________ Item_________

A6	The following parts of Section I are vague, or confusing, or seemly inconsistent; please provide clarificatory comments with emphasis on specificity.
A7	Ditto the above except for Section II Page________ Item_________
A8	Ditto the above except for Section III Page________ Item_________
A9	Ditto the above except for Section IV Page________ Item_________
A10	Ditto the above except for Section V

CODE	ITEM
	The following information areas are insufficient for planning:
A11	Academic Analysis
A12	Behavior Analysis
A13	Family Eco-system Analysis
A14	Classroom Eco-system Analysis
A15	Neighborhood Eco-system Analysis
A16	Community Eco-system Analysis
A17	Eco-Systems interactions Information
A18	Any chance of retroactively completing the following?
A19	Need more detailed information concerning child's involvement with this program.
A20	All materials should be dated.
A21	Process Objectives not linked to Product Objective(s)
A22	Process Objective(s) should be written in terms of Support Team or other agent's implementation strategy(ies) for reaching the Product Objective(s) rather than as a series of successive approximations by the child toward the Product Objective(s) criterion level expected.

FACTOR B: REQUEST FOR ADDITIONAL ANALYSIS AND PLANNING FORMS, ETC.

CODE	ITEM
B1	Suggest that Problem Behavior Analysis (PBA) and Available Contingency Analysis (ACA) be completed with attention given to the following areas:
B2	Suggest that Behavioral Intervention Planning (BIP) be completed with attention given to the following areas:
B3	Suggest that Academic Analysis (AA) (and if appropriate, academic planning) be completed with attention to the following areas: (PC would list here any potential problem behaviors which support team members seemingly overlooked.)
B4	Suggest that Family Eco-system Analysis (FEA) be completed with emphasis on the following aspect of the family milieu: (Here the PC would list any problem(s) which he thinks might be affecting the child.)
B5	Suggest that Classroom Eco-system Analysis (CLEA) be conducted with attention given to the following:
B6	Suggest that a Neighborhood Eco-system Analysis (NEA) be conducted with the following consideration in mond:
B7	Suggest CLEA be conducted with the following consideration in mind:
B8	Suggest further consideration be given to the Eco-system Interaction Analysis, specifically:
B9	Suggest completion of Ecological Change Strategy (ECS) with emphassis on:
B10	In light of recent developments suggest that Intervention Objectives (Section V) be reformulated with specific attention to the following:
B11	Another data probe is needed.

FACTOR C: NEED FOR STRATEGY CHANGE INDICATED

CODE	ITEM
Classroom	
C1	More intensive involvement with teacher needed.
C2	There is need to restructure peer interaction in classroom.
C3	Suggest a wait and see strategy concerning next years program status.
Home	
C20	More intensive involvement with mother needed.
C21	" " " " father "
C22	There is a need to restructure sibling interactions in the home situation.
C23	Suggest that mother be more directly involved with this problem.
C24	" " father " " " " " " "
C25	" " parents " " " " " " "
C26	" " family " " " " " " "
C27	Child should not be sleeping with parent(s).
Other - Ecological	
C40	Community involvement is needed (i.e. Boy Scouts, etc.)
C41	There is a need to restructure peer realtionships in community setting.
C42	Different ecological agent needed.
Performance Objectives	
C50	Product Objective: Audience information missing/incomplete.
C51	" " Behavior " " "
C52	" " Condition " " "

CODE	ITEM

Performance Objectives contd.

C53	Product Objective: Degree information missing/incomplete.
C54	" " Evaluation " " "
C55	Process Objective: Audience " " "
C56	" " Behavior " " "
C57	" " Condition " " "
C58	" " Degree " " "
C59	" " Evaluation " " "
C60	In light of recent developments suggest that Intervention Objectives (Section V) be reformulated with specific attention to the following:

Miscellaneous

C80	Reinforcement contingencies in need of reappraisal.
C81	Suggest you consider a different approach.
C82	Problem complex and objectives are not clearly related.
C83	Contingencies maintaining current problem not clear.
C84	Baseline information needed on this problem.
C85	Need to Premack this problem/situation.
C86	Change in data report method needed.
C87	Success criterion appears to have been reached.
C88	Child appears to have regressed on this index. What is happening?
C89	Suggest that you bring up to date sections:
C90	Data do not appear to be indicating change on this index

FACTOR D: DIRECTIVE SUGGESTIONS (INTRA-SCHOOL PROGRAMMING)

CODE	ITEM
D1	Until progress is manifest in ______, suggest that _________ and _________ be held in abeyance.
D2	Suggest emphasis be placed on Behavioral Enactment and Evaluation (BEE)
D3	" " " " " Academic Enactment and Evaluation (AEA)
D4	" " " " " Ecological Enactment and Evaluation (EEE)
D5	Suggest that ________ and ________ be conducted concurrently with primary emphasis on __________.
D6	Suggest that ________ and ________ be conducted concurrently with equal emphasis.
D7	Would it be useful to give this child the BESI and thereby isolate any specific deficits that could be attacked?

FACTOR E: DIRECTIVE SUGGESTIONS (EXTRA-SCHOOL PROGRAMMING)

CODE	ITEM
E20	How do you feel about summer tutoring for this case?
E21	This child could certainly benefit from continued attention. Is there any summer project that might be appropriate?
E22	What are the potential community recreational opportunities?
E23	Should this child be considered for inclusion in another program, such as ____________.
E24	Indications of a need for a hearing exam
E25	" " " " " " vision "
E26	" " " " " " medical "
E27	" " " " " " neurological exam
E28	" " " " " " other (specify) exam

FACTOR F: HOME MILIEU SUGGESTIONS

CODE	ITEM
F1	A home visit seems warranted here.
F2	Clarify the father's role in this problem.
F3	" " mother's " " " "
F4	Clarify the sibling's role in this problem.
F5	Clarify the other family members' role in this problem.
F6	Have you any suggestions about possible ways to reduce the level of conflict between child's parents?
F7	What are the employment possibilities for father?
F8	" " " " " " mother?
F9	" " " " " " other family members?

FACTOR G: STATUS AND TERMINATION INFORMATION

CODE	ITEM
G1	Suggest you consider fading involvement in one or more of the following areas as listed in the comments section: a) academic b) behavioral c) ecological d) mother e) father f) other (specify)
G2	Some thought should be given to termination of intensive involvement with this child.
G3	Suggest that additional goal achievement is unlikely and that case should be terminated. Please submit Termination forms.
G4	Please submit Case Summary Report Form: STATUS
G5	" " " " " " : TERMINATION
G6	Status and Termination form is incomplete.
G7	Why the lag between achievement of objectives and termination?

FACTOR H: COMMENDATIONS

CODE	ITEM
H1	Concur with expressed reasoning and proposed intervention strategy.
H2	Good behavior analysis
H3	Good behavior analysis and intervention planning
H4	Progress in apparent in this area
H5	Intervention objectives cogently stated.

FACTOR I: COMMENDATIONS

CODE	ITEM
Academic	
I1	Concur with expressed reasoning and proposed intervention strategy.
I2	Good progress on consonant recognition goal
I3	" " " reading comprehension "
I4	" " " arithmetic "
I5	" " " upper case letter recognition goal
I6	" " " lower " " " "
I7	Good academic analysis and planning section.
I8	Good. Suggest you reinforce teacher for reinforcement she is providing child.
I9	Intervention objectives cogently stated.
I10	Good Progress toward academic goal.

FACTOR J: COMMENDATIONS

CODE	ITEM
Other Ecological	
J1	Concur with expressed reasoning and proposed intervention strategy.
J2	Good section on Family Eco-System
J3	" " " Classroom Eco-system
J4	" " " Neighborhood Eco-system
J5	" " " Community Eco-system
J6	" " " Eco-systems Interactions
J7	" " " Other Ecological change strategy
J8	Intervention objectives cogently stated.

FACTOR K: COMMENDATIONS

CODE	ITEM
Miscellaneous	
K1	Concur with expressed reasoning and proposed intervention strategy.
K2	Your conclusions and recommendations were clear and cogent.
K3	Your explanations were clear and informative.
K4	Contingencies appear clear.
K5	Clear statement of the problem.
K6	Perseverance! Even though results are not immediately forthcoming, your strategy appears correct and recommend you stick with it a while longer before considering a change.
K7	Intervention objectives are clearly linked to the problem complex of this case.
K8	Data indicate strategy is producing anticipated effect.
K9	Data are clearly presented.
K10	Congratulations
K11	Mirabilidictu!
K12	Excellent overall workup.
K13	Planned program appears appropriate to problem situation.
K14	Well written intervention objective containes all necessary components.
K15	All Intervention Objectives well written.

FACTOR L: INFORMATION RECEIVED

CODE	ITEM
L1	Satisfactory
L2	Looking forward to more information.
L3	More information needed immediately.

Name of Child____________________________

No. of Child____________________________

stem No.__________ Ele. Jr.

Dates (& PC's):

Cycle 1 ____-__-____ (____)

Cycle 2 ____-__-____ (____)

Cycle 3 ____-__-____ (____)

Cycle 4 ____-__-____ (____)

Cycle 5 ____-__-____ (

Cycle 6 ____-__-____ (

Cycle 7 ____-__-____ (

Cycle 8 ____-__-____ (

CASE FEEDBACK FORM (PIP, '73-74)

TOPIC	Sub-Topic Numbers	CODE(S)	COMMENT(S)	Answer Desired
(I) BCI				
(II) PBA				
ACA				

TOPIC	Sub-Topic Numbers	CODE(S)	COMMENT(S)	Answer Desired
BIP				
III)AAP				

IC	Sub-Topic Numbers	CODE(S)	COMMENT(S)	Answer Desired
(IV) FES				
CIES				
NES				
CmES				
ESI				
OECS				

TOPIC	Sub-Topic Numbers	CODE(S)	COMMENT(S)	Answer required
) EM				
IO				

TOPIC	Sub-Topic Numbers	CODE(S)	COMMENT(S)	Answer Desired
I) EE				

PIC	Sub-Topic Numbers	CODE(S)	COMMENT(S)
CCS			
CSRF			

APPENDIX B

EXECUTIVE COMMITTEE QUESTIONNAIRE

This form was completed by ______________________

Date ______________________

Consultation by the Program Consultants for your Support Team is used to assist in the strategies for the target children as well as to provide ongoing training to the team members. Please indicate the quality and quantity of this activity to your system for the past year by placing and X above the correct statement.

1. Consultation was available when requested throughout this year.

   always frequently sometimes rarely never

2. Consultation was requested by your team this year.

   very frequently frequently sometimes infrequently very infrequently

3. Consultation was provided when requested.

   always frequently sometimes rarely never

4. Team growth was noted during the year.

   much some same level none regressed

5. Consultation with the Program Consultants played a part in this change.

   very positive positive neutral negative very negative

6. Your team was aware of the role expectation and philosophy of the project and could plan strategies for the children referred.

   very adequately adequately some inadequately very inadequately

7. The Program Consultants maintained a consistent philosophy in the work with your team this year.

   always frequently sometimes rarely never

8. Visits and contacts were made between the central offices of the project and your system this year.

   too many often adequate rarely not enough

If you have any comment concerning the consultative services, teacher training, administrative support, research efforts, etc. which are not covered above, please feel free to make these on the back of the sheet or in a letter to me later.

APPENDIX C

PARENT QUESTIONNAIRE

Parents of: ____________________

May 1, 1973

Parent Questionnaire

Dear Parent(s):

Sometime during this school year you were contacted by either or who are support teachers in the Prevention-Intervention Project. Since we attempt to evaluate carefully every phase of the team's activities we would greatly appreciate your answering the following brief questions. Your comments will be treated as confidential information.

1. Why were you contacted by the support team?

2. What did you and the team work on together?

3. Assuming that we learn something from almost every experience we have, what do you feel you have learned from working with the support team and your child:

4. Overall, would you say this has been a helpful experience? (Check one)

Not Helpful At All	Not Very Helpful	Not Sure	Somewhat Helpful	Very Helpful

5. How do you feel about your child's school experience this year?

Not Satisfactory At All	Not Very Satisfactory	Not Sure	Somewhat Satisfactory	Very Satisfactory

Additional Comments:

APPENDIX D

COMMUNITY ADVISORY COUNCIL QUESTIONNAIRE

COMMUNITY ADVISORY COUNCIL QUESTIONNAIRE

QUESTIONNAIRE: Please place a check (✓) at the appropriate point on the line for each question below.

I. Familiarity with the program:

A. How clearly do you feel you know the formal purpose of the Prevention-Interve Project as it applies to your local school and community situation?

Know Nothing	Know Very Little	Know A Moderate Amt.	Know Very Much	Know Everything

Additional Comments (if any):

B. How many contacts have you had with the PIP support personnel regarding children in your community?

No Contact	One Contact	Two to Four	Four to Seven	Eight or More

Additional Comments (if any):

C. With how many children in your community have you and the support personnel worked together as a team?

None	One Child	Two to Four	Four to Seven	Eight or More

Additional Comments (if any):

II. Effectiveness:

A. How effective do these support personnel appear to be in aiding in the resolution of children's difficulties?

1. Behavioral difficulties:

Made Problem Much Worse	Made Problem Slightly Worse	No Change	Made Problem Slightly Better	Made Problem Much Better

Additional Comments (if any):

2. Academic difficulties:

Made Problem Much Worse	Made Problem Slightly Worse	No Change	Made Problem Slightly Better	Made Problem Much Better

Additional Comments (if any):

3. Family and/or Community difficulties:

Made Problem Much Worse	Made Problem Slightly Worse	No Change	Made Problem Slightly Better	Made Problem Much Better

Additional Comments (if any):

B. How useful do you think a program of this type would be to your community if there were more personnel available to the schools?

Would Definitely Not Be Useful	Might Not Be Useful	Don't Know	Might Be Useful	Would Definitely Be Useful

Additional Comments (if any):

PAPERS PRESENTED AT THE ANNUAL INTERNATIONAL CONVENTION
of the COUNCIL FOR EXCEPTIONAL CHILDREN, 54th, CHICAGO, ILL.,
April 4-9, 1976

THE PREVENTION-INTERVENTION PROJECT

Wayne Pyle
Metro Public Schools
Nashville TN
615-259-5826

Goals and Objectives: The primary purpose of the Prevention-Intervention Project was to field test the teacher-counselor roles which have been developed in the Tennessee ReEducation Institute (Project ReED/George Peabody College/Tennessee Department of Mental Health/North Carolina Department of Mental Health) in a public school setting. Modification of these highly successful roles was necessary due to the inability of residential schools to serve great numbers of handicapped youngsters and the necessity of programming for handicapped youngsters in the mainstream of education.

The Prevention-Intervention Project developed a set of problem solving concepts and training materials which prepare teachers to assume resource/consultant roles in order to work with the regular educational program in the mainstreaming of exceptional children. To accomplish this purpose the project initiated activities in three areas. First, the Tennessee Department of Mental Health trained resource/consultant "support" teacher personnel in ecological analysis and intervention techniques for work with classroom teachers, students, parents, and community agencies. Also, support teachers helped classroom teachers learn to maintain behaviorally, academically and other-ecologically discordant students within the regular classroom. Finally, support teachers helped work with students, and in some cases their families, in the alleviation of behavioral, academic and other problems which were either currently or potentially a hindrance for the pupils' optimal school experience.

Context: The program was implemented in five Tennessee School Systems, which are representative of school systems on a national basis. The Memphis City School System exemplifies the large, highly urban school district. The Hamilton County School System surrounding Chattanooga, Tennessee is a surburban school district.

The Knoxville City Schools are located in a medium size city. The Robertson County Schools, Springfield, Tennessee, are located in a low density rural situation. The Nashville-Davidson County Schools are located in a large Metropolitan form of city-county government.

These five school systems represented 30% of the school age children of the State of Tennessee. The widest possible range of socio-economic levels, cultural and ethnic groups, and community organizations were readily available. Administrative arrangements with each of the five school systems differed dramatically, offering contact through the local school system in the area of special education, curriculum and instruction, program and staff development, and pupil personnel services. Active involvement with the Tennessee State Departments of Education and Mental Health, as well as the Citizens Advisory Committee selected from the separate geographic regions and five completely independent schools systems prevented any one location from assuming a position of dominance in project activities.

Program Description: The project focus during the first four years of operation was to provide support staff to regular classroom teachers to (1) assist them in analyzing problems of children and (2) help them plan intervention strategies for these problems so that pupils might deal effectively with the demands of their environment as they remain in the mainstream of education. By so doing, classroom teachers acquired problem solving skills and were able to more effectively deal with all children, especially handicapped. This resulted in a lower referral rate from the mainstream of education to special education services.

During the second year of the project activities, the Tennessee Legislature passed a mandating law for handicapped children (Tennessee Code Annotated Section P.L. 839) which changed entirely the delivery service routine for handicapped youngsters under the Department of Special Education, suggesting a mainstreaming and nonlabeling approach which closely resembled the Prevention-Intervention Project objectives and has resulted in wider use and consultation of project staff in the development of programs for the handicapped throughout the state.

During the fourth year of operation a special grant from the State Department of Education allowed for the training of up to 100 teachers in five centers throughout the state, while a refinement of the training module was undertaken. The six weeks summer training was able to utilize the previously trained support team members, with consultation, in this training of additional personnel. A critical and ongoing portion of the project concerned the maintainance of a feed-back loop through program consultants who worked with support team members in a problem solving process initiated for each target pupil. A highly structured written format of casework information exchange called a "heuristic" was developed by project personnel for reporting in common format the behavioral objectives which are formulated with the regular classroom teacher to remediate the difficulties experienced by the target child. These behavioral objectives often involved not only the academic remediation but also parent and community agencies participation as the child's entire ecology was viewed in relationship to this discordant behavior. This feedback loop was viewed as continued training and maintained a consistency of project activities across the state. This project requires no special curriculum, facilities or materials but rather restructures the existing program to meet the individual needs which pupils present. Regular classroom teachers involve themselves with support staff as members of a problem solving team to define the specific needs of children. These needs are analyzed in light of available contingencies and an intervention based on these is planned for the pupil.

"A RE-ED MAINSTREAMING PROJECT TO MAINTAIN EXCEPTIONAL CHILDREN IN REGULAR CLASSROOMS: THE PREVENTION-INTERVENTION PROJECT"

"Utilizing Community Resources"

Louise MacKay

One of the most important concepts that has guided our work in the Prevention-Intervention Project has been the use of the ecological model. This model, adapted from the Project Re-Education Schools is a way of discovering and working with the inter-relationships that exist in a child's world. Many children who have special needs in the school setting also have special needs in the other significant settings of their personal ecology.

Some of these settings are fairly standard. An eight year old boy in the second grade for example, usually has a personal ecology that includes his school, home, informal peer group and sometimes a more organized setting such as the church, Cub Scouts, or a community recreation center.

Many of the children with whom we deal, however, have a very limited personal ecology that consists only of two major settings that are replete with problems: school and home. It is these problems and their interaction that are a major concern for the PIP teacher. When there are problems within a child's eco-system they are seen as discordances that are possible intervention targets and the assumption is made that there is greater opportunity for the child's world to be a productive and happy place if the problem solving strategy looks not only at the school related problems but as many of the "other" types of problems as possible.

When we state that we are working with a child's ecological system, what we are doing then, is finding out just what behavior settings exist in this child's life and who the significant individuals are in those behavior settings. We try not to make assumptions about expectations that behavioral settings contain. Just as no two home settings are alike it is generally non-productive to expect that two second grade classrooms have the same behavioral expectations of the children.

The PIP teacher then must spend a certain amount of time interviewing the significant people in these settings and observing the transactions that are taking place. The simplest cases to deal with are those where the significant people in the child's ecological system are willing to work with each other in order to remediate the problem. But many times we have found that for an infinite variety of reasons, this is not a feasible way to initiate an intervention that has a high probability of success.

It is at such times that we must look to the larger ecological system that supports the personal ecology of the child and go for help to the settings that are within reach of the child's home or school but may, for all practical purposes, be dormant.

It has been my experience that there are resources within the community to help solve or at least decrease the severity of practically every situation that we can find classroom children experiencing. Our goal has always been to start the problem solving process by looking at the simplest solution first and many times that has been sufficient. A more open and continuing communication between the classroom teacher and the child's parents may solve a problem related to class attendance or task completion. A visit to the child's home and discovering the reason he is late to school every day might be because there is not a clock in the home.! A simple solution is obvious and I have had this type situation arise more than once, so again we do not have to make the immediate assumption that we are going to have to solve a multitude of problems just because we initiate dialogue with the parents.

Of course, it is the more difficult cases that take our time and cause us much grief as we struggle to find the key to the "ecological puzzle". However, there are so many keys waiting to be used and it really does not take that vast amount of time that we teachers often visualize! Throughout the state of Tennessee, in metropolitan, suburban, inner-city, small town and rural situations, PIP teachers have found that there are vast numbers of people, both as individuals and as organizations who will willingly help you solve problems.

There are a few important priorities to utilizing this concept, however, first, you have to know who the people and the organizations within the community are before you can turn to them for help. During our PIP training, I was amazed at the number of teachers who have not made home visits or ever visited a public or service organization. Such contacts are impossible to measure. After you have initiated a few contacts and become a "real person" to the "real people" in these settings, the job progressively becomes easier as you accumulate a roster of people whom you can call for help. The Men's Clubs, the many Women's organizations, the local colleges, the policemen, the firemen, the community recreation center personel, Boy Scouts, Girl Scouts, arts and crafts experts, musicians,---every one of them have worked with us in some manner to solve a child's problem.

A second very important point to remember once you have identified these people within your community also exists. Once you decide to ask for their help in solving a child's problem, it is of the utmost importance that you clearly identify for them what you want them to do and that you provide them feedback as to the progress of their involvement with that child. No one wants to feel that they are being sent to the "dead letter" box and that is the feeling that all of us have had at one time or another when we have really made an effort to do something at someone else's request and never heard whether it helped, hindered or simply didn't matter. If the communication lines are not kept open, then you will find that your potential sources of help will dry up. But, if you will find ways to really let that person or organization receive some recognition for their work, they are in your corner from then on.

We have seen to it that certificates of appreciation go to each person who helps us - whether it is a 2nd grader tutoring a 1st grader or the Junior League taking a group of children to the Museum. This takes some time, but not as much time as the day to day hassle of trying to solve a problem in your classroom when it does not contain the key to solving the problem.

I would imagine that the majority of the teachers who deal with children have many responsibilities that call to them when they leave the classroom. Like many of you, I have 3 teen age children who need to be taken to many lessons, classes, and daily crises occur at our house, too. However, I do not think that I have the right as a responsible citizen to say that my job as a teacher does not leave time for me to be involved in my church, my neighborhood and my community. I have involved my husband and my children in my work, they have, in some instances, been the "keys" to helping me get a child to his swimming lesson or learning his multiplication facts. Some of the parents call our home so often, if I am not there, they will talk to whoever is there, knowing that at least there is a caring person listening to what they have to say.

There are loving, responsible, caring people all around us--many of them can be the key to the problem that you might think today has no solution. Our message to you is to look for those people, become one of them - join the Woman's Club, the Garden Club, the ceramics class - whatever organization or interest you might have outside your classroom lets people see you as a viable part of their world and they just might surprize you by their willingness to become a part of your world!

Paper presented at Council for Exceptional Children Convention, Chicago, Ill. Apr. 76.

"A RE-ED MAINSTREAMING PROJECT TO MAINTAIN EXCEPTIONAL CHILDREN IN REGULAR CLASSROOMS: THE PREVENTION-INTERVENTION PROJECT"

"Continued Training and Consultation"

Beverly Lee Lewis

One very unique aspect of the Prevention-Intervention Project was the continuous consultation services provided to the support teachers through the staff of program consultants. The consultation services were designed around the belief that learning must be reinforced for the newly acquired behaviors to be maintained with adults as well as children. Several different methods of delivering consultation assistance were utilized and these can be categorized into three major strategies; workshops, site visits and written feedback.

Routine workshops were conducted by the program consultant and evaluation staff for the classroom teachers as well as the support teachers. Beginning with the first grade, each year the support team (two teachers functioning in consulting teacher roles) worked with the next higher grade level classroom teachers as they were following the same children from year to year. This procedure required that general training and project explanations occur yearly for the new classroom teachers involved in the project. Prior to the beginning of school the executive committee members, program consultant and evaluation staff, and the support teachers conducted workshops for the classroom teachers for the purpose of orienting them to the project. Additional, more substantive, workshops were made available to the classroom teachers throughout the year upon request of the program consultant and evaluation staff. Many of these workshops were conducted on classroom teacher requested subjects ranging from utilization of community resources to classroom behavior management and academic planning strategies.

The workshops planned for support teachers served a variety of functions including project-wide planning, information on new educational materials and programs and sharing of problem-solving strategies. Each support team would present a case which was very successful and a case which was not as successful for the purpose of obtaining group feedback and suggestions. Another function of the support teacher workshops which was vital was that of maintaining the esprit de corps which seemed to have a rejuvenating affect on all personnel. The support teacher workshops were conducted bimonthly for two days in the

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Paper presented at Council for Exceptional Children Convention, Chicago, Illinois, April, 1976.

centrally located city of Nashville.

Site visits were conducted monthly. Each program consultant was assigned a different support team monthly and a minimum of one day site visit was required by the program consultant for each team monthly. In preparation for the site visit, the program consultant would confer with the support team's program consultant for the previous month, both verbally and by reviewing a standard notebook for visit and phone call notes on each case the support team had on active-status. The visits generally followed an agenda that included observations of classroom teachers and children, reviewing active case files (objectives and monitoring data), and problem-solving discussions on the more difficult cases. A unique type of site visit was requested by the support teachers....they wanted to site visit one another. Program consultants assisted in making the necessary arrangements so the support teams could observe the various schools and share ideas--and frustrations.

Along with the vis-a-vis consultation, support teachers received written feedback on each active case at lease once every three weeks. This written communication was systematized through the support teachers use of the heuristic, a questionnaire-type analysis, planning and program implementation form. The support teachers completed a heuristic form on each child or group of children with whom they were working. This form was mailed to the program consultant and evaluation staff. The program consultants, upon reviewing the case information, would respond to the information via the case feedback form. Therefore the support teams would receive written input concerning their analysis, planning, implementation and monitoring strategies for the child. In cases where more immediate feedback was deemed necessary, the program consultant would phone the support teachers to communicate the concerns so that action on the case was not delayed. In addition to the phoning of feedback on heuristic information, a system of phoning each support team daily aided in maintaining open communication. The program consultant secretaries would phone the support team secretaries daily for messages, questions or concerns. A state WATS line facilitated the extensive use of the phoning.

The PIP research studies show that the support teachers gained in knowledge of facilitating behavioral change in children during the school year. From this we can assume that the intense consultation afforded the support teachers did in fact serve as a training function.

PREVENTION-INTERVENTION TRAINING:
OBJECTIVES, CONTENT AND ORGANIZATION

The Prevention-Intervention Project training program has evolved into the equivalent of six weeks of intensive training with subsequent consultation to trainees on their work with children, teachers and parents. The initial portion of training for PIP support teachers consisted of an intensive 240 hours spend in a central location with the project's training staff. This staff was composed of program consultants for the Tennessee Department of Mental Health who were experienced in solving children's problems from the Tennessee Re-education programs. Program consultants had been specifically recruited for the purpose of developing a training sequence designed to impart to public school personnel those skills found useful in improving the academic and behavioral functioning of problem children in their own home, school and community setting.

Then entire program is based on an ecological model which views children's problems as the result of discordance in the child's interaction with ecological units in his world (Hobbs, 1966). It contains throughout a heavy emphasis on skill-building which requires thorough analyses of the child's skills, of the demands made on those skills by his environment, and of the capability of environmental agents to teach him those skills needed which are not currently included in his repertoire. In this view, emotional or maladaptive behavior is a function of the child's lacking the skills demanded by his world or possessing more skills than are being demanded (Bricker, 1967 & Hobbs, 1975). The basic tenet that behavior is learned in lawful ways and can be learned more efficiently or re-learned through skilled use of these principles is maintained throughout the training. These basic training assumptions are applied to their use with a wide variety of children's behavior, skill and other (health, medical, economic, child care, recreational,etc.) problems

The intensive training period consists of progression through eight "modules" each of which requires from two to five days for coverage. The modules are listed in sequence and briefly describe below.

1. Behavioral Principles - This module deals with the basic principles of human behavior as it is learned and can be changed (5 days).
2. Basic Evaluation Techniques - Stressing the importance of accountability, feedback, and methods used to evaluate interventions with children, this module presents various procedures of observing and recording behaviors, charting and graphing data, and basic single subject research designs (4 days).
3. Contingency Management - Utilization of behavioral principles through many different forms or methods of contingency management is the subject of this module (4 days).
4. Program Relevant Evaluation - Information is provided in this module for the identification of academic deficits and for skill assessment in such a specific manner that programming for the child's acquisition of relevant skills is possible (4 days).
5. Academic Programming - This module deals with the design and implementation of remedial programs for building children's skills (4 days).
6. Communication Skills - Various exercises are presented which relate specifically to techniques designed to enhance communication and facilitate group problem-solving (3 days).
7. Dealing with Other Problems - This module pertains to problems other than behavioral and academic, such as those in the medical, legal, health, economic or recreational areas. It deals with gathering information,

formulating intervention strategies and coordinating efforts directed toward solving children's problems (3 days).

8. Coordinated Ecological Planning - This section emphasizes a view of the total ecology of the child and teaches the use of the "heuristic" (a systematic flowchart) as an aid for problem solving (2 days).

Modules each include a list of specified concepts for training which keyed to behaviorally-stated training objectives and activities. Activities include both individual and group work; some are arranged to allow for progression at an individual trainee's rate during whatever time is available to him, while others require small group sessions. The initial and final half days of training were spent in testing for evaluation purposes.

This initial six weeks period was viewed as only the beginning of support teacher training. The central commitment of PIP to a continuing training model through consultation and continued follow-up is critical.

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Research Results from the Prevention-Intervention Project

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The following materials were adapted from the ESEA Title III validation application. The Prevention-Intervention Project was certified as being validated in May, 1975.

Four project objectives were submitted for validation scrutiny. These objectives and their accompanying evaluation results are presented following.

> Objective 1. The Tennessee Department of Mental Health would train resource/consultant "support" teacher personnel in ecological analysis and intervention techniques for work with classroom teachers, students, parents, and community agencies. This objective was to be considered met successfully if support teachers made statistically significant gains on the Alternative Classroom Strategies Inventory and on a series of multiple choice items pertaining to the training module content between the initiation of training and the end of training.

Two groups of support teachers have been trained thus far in the project: 1) an elementary group (N = 10) who are now in their fourth project year, and 2) a junior high group (N = 10) who are now in their second project year of activity. Both groups made statistically significant gains pre- to post- training on (1) a measure of knowledge of behavioral principles (the Classroom Behavior Inventory, renamed the Alternative Classroom Strategies Inventory), (2) a measure of teacher attitudes (Minnesota Teacher Attitude Inventory), and (3) multiple choice items concerned with major concepts from each of the training program modules (ecological planning, program relevant evaluation, evaluation techniques, group processes, behavior management, and academic programming). Table 1 presents the results of the training activities' evaluation. As can be seen from the table, trainees not only showed mean growth on these measures; they also became significantly more homogeneous.

> Objective 2. Support teachers would help classroom teachers learn to maintain behaviorally and academically discordant students within the regular classroom. The accomplishment of this objective was to be evaluated by means of two measures: 1) classroom teachers would make statistically significant behavioral knowledge gains on the Alternative Classroom Strategies Inventory as a function of their consultative contacts with support teachers in the solution of children's problems, and 2) maintenance of behaviorally and academically discordant students in the regular classroom was to be measured by significantly fewer ($p < .05$) students being referred for psychological services by teachers in experimental schools than by teachers in control schools.

Since classroom teacher involvement in the experimental schools was voluntary, so far as teacher referrals of students was concerned, this objective was measured on two levels using the Alternative Classroom Strategies Inventory. Test results were analyzed for experimental teachers on (1) repeated testings relative to control school teachers' scores and (2) as a function of the amount of contact time experimental school teachers had with support teachers in the resolution of children's problems. Table 2 presents the ANOVA results for repeated testing on experimental and control teachers for the testing means depicted in Figure 1.

Secondly, experimental teachers' knowledge changes differed significantly ($F = 3.69$, $p < .05$) as a function of support team contacts. Table 3 presents the analysis of variance results for this analysis. Teachers with whom support teachers had contact both years one and two of the project made the greatest gains in knowledge. Figure 2 depicts the results of the comparison of differential experimental teacher knowledge gains as a function of the amount of contact time they had with support teachers in the resolution of children's problems. Support teacher knowledge gains on the same measure are superimposed on this chart for comparative purposes.

One independent measure of the effectiveness of support teacher-classroom teacher teamwork in maintaining behaviorally, academically and other-ecologically discordant students within the regular class room program was the number of students referred to psychological services units within the different school systems by experimental and control school teachers. These data were gathered from psychological service units' referral records from the respective experimental and control schools within each of the school systems. Table 4 presents the results of this evaluation. Reasons for referrals were taken from those listed on psychological services records. Control school teachers referred significantly more students ($\chi^2 = 19.78$, $p < .001$) than did experimental. The highest frequency of referrals by control school teachers were in the areas of underachievement and suspected intellectually and emotionally handicapping conditions.

> Objective 3. Support teachers would work with students, and in some cases their families, in the alleviation of behavioral problems which were either currently or potentially a hindrance for the pupils' optimal school performance. The accomplishment of this objective was to be evaluated by means of a statistically significant decrease in observed disruptive and non-attentive classroom behaviors by target children referred to support teachers for behavior problem intervention over the academic year's span.

Impact on behavior problems: Data collectors were specifically trained to perform independent classroom observations of teacher-pupil interactions in both experimental and control school classrooms. A data collector-criterion rater coefficient of ratings agreement was maintained at the 80+% level. Classroom observations took place, on the average, twice per month for an observation period spanning 30 minutes.

Students who were referred to support teachers because of behavior problems became significantly less disruptive and non-attentive across the intervention time period while control school students increased somewhat in disruptive and non-attentive behavior across the year's span. Table 5 presents the ANOVA results for the second year data. Figure 3 presents the mean rates of disruptive and non-attentive behaviors for both experimental and control group students for the second year.

Table 6 presents the third year's comparison between experimental school disruptive students and control school students; these third year results included the junior high comparisons. A significant experimental vs. control by repeated observations interaction was obtained (F = 5.11, df = 1, 77, p <.05). The nature of the interaction is depicted in Figure 4. Both elementary and junior high school experimental school disruptive students showed a significant drop in disruptive and non-attentive behavior across halves of the year's observation. It must be noted that control group students were not matched with experimental school behavior problem students on any dimension other than that control school teachers nominated students for observation on the basis of their being "behaviorally active". In this sense, then, control school students were probably more similar to a "normal" group of students than were the behavior problem experimental school students.

> Objective 4. Support teachers would work with individual and/or groups of students and their teachers in the alleviation of students' academic problems which were either currently or potentially a hindrance for the pupils' optimal school performance. The accomplishment of this objective was to be evaluated by means of a statistically significant difference in residual achievement gain scores between students in all experimental and control school classes.

Impact on academic problems: Residual achievement gain scores were used to indicate the difference between year-end achievement and predicted achievement scores for each first grader in both experimental and control schools. These residual scores were obtained using the multiple regression of beginning of the year I.Q. scores (Otis-Lennon) and pre-achievement (Metropolitan Achievement Test) (primer) on year-end achievement scores. Means and standard deviations for high I.Q. (range 105-135), middle I.Q. (range 90-104), and low I.Q. (range 50-89) pupil achievement residuals are presented in Table 7. Significant achievement residual gains were obtained in favor of experimental compared with control group students in Listening achievement (F = 11.18, p <.001) and Reading achievement (F = 6.49, p <.025), but not in Numbers achievement (F = 1.84, N.S.). With the exception of Listening achievement where experimental school high I.Q. pupils (I.Q. range 105-135) achieved significantly higher (F = 9.05, p <.005) than control school high I.Q. pupils, there were no other areas in which high I.Q. pupils in either experimental or control schools differed in residual gain achievement. These results were interpreted to mean that experimental school teachers could, with the ongoing aid of the support teachers, maintain exceptional or potentially exceptional children within the regular classroom without detrimentally affecting the achievement of the brightest students in their classes.

The first grade teachers referred to in the previous analysis continued to produce similar effects with their subsequent students. Students who were first grade experimental and control pupils during the project's second year were tested at the beginning of their first grade year (pre-grade 1 in project year 2) and again at the beginning of the second year grade (pre-grade 2 in project year 3). These preliminary follow-up data indicate that experimental school students enter second grade with significantly higher MAT mean percentile scores on Word Knowledge and Numbers after their year with experimental teachers, even though they entered first grade with readiness percentile scores that were lower than those of control school students. Table 8 presents the mean percentile and F test results for this follow-up analysis.

D. EVIDENCE OF RESOURCE SPECIFICATIONS

The project received an expansion grant (state funding under P.L. 839, Mandating Services for the Handicapped) to prepare an additional 100 teachers in the PIP problem solving techniques. As a result of this contract we have a proven replication cost.

The cost of training a support teacher is $1,000. This includes costs for training materials, consultative and training staff, follow-up visitations, mail, telephone, etc. This amount is based on a minimum of 10 trainees in any geographic location within 200 miles of the central facilities (Nashville). Groups were trained in Memphis, Knoxville, Chattanooga, and Nashville, Tennessee during this past year. These groups represented 17 school systems which surround the various satellite training locations. Increased distances may add slightly to this cost.

Each system provides for the salary of the educator trained. These have returned to their normal duties as teacher, resource teacher, principal, guidance counselor, school psychologist, etc. These ongoing personnel costs, of course, are not considered in the cost factor.

Should the trainee serve as a resource teacher, for example, we find that they easily serve 15-20 teachers in working with a caseload of approximately 75 target children.

During the first four years of project operation several basic principles have been recognized: 1) Intensive classroom training of professional educators requires continual and ongoing feedback if the initial concepts are to be maintained over time. 2) Training materials for the preparation of support teachers were not available and the preparation of these required extensive effort by the evaluation and consultation staff. 3) A problem solving process utilizing ecological agents, the regular classroom teacher, and trained support personnel can successfully mainstream youngsters with handicaps, and 4) this process can be sufficiently flexible in the delivery of services to the handicapped to meet an extremely wide variety of school settings.

E. EVIDENCE OF PROJECT EXPORTABILITY

Twelve school systems have initiated portions of the project operational model during the four years of project activity. This expansion was made possible through support from the Tennessee Department of Education. The training program which has been developed follows a sequential series of events which are viewed as essential. The system selects staff

G. UNANTICIPATED OUTCOMES AND SPINOFF FINDINGS

Teacher-Pupil Interaction Research. Two papers have been presented to the annual conventions of the American Educational Research Association and three papers to the convention of the Mid-South Educational Research Association on various significant results that have been obtained from the project. One AERA paper (Cantrell, Wood & Nichols, 1974) reported significant differences between high and low behavioral knowledge teachers in the relative proportions of praise to criticism they used in class. High behavioral knowledge teachers used more praise than criticism in conducting the classes while low behavioral knowledge used more criticism than praise.

Another AERA paper (Cantrell, Stenner & Katzenmeyer, 1975) reports significant differences in classroom teaching style between three teacher knowledge-attitude profile cluster groups. Three distinct profile groups were obtained: (1) a low knowledge, authoritarian attitude group (Traditional Authoritarian), (2) a high knowledge positive attitude group (Positive Contingency Managers), and (3) a low knowledge, positive attitude group (Traditional Non-Authoritarian). High behavioral knowledge teachers (Positive Contingency Managers), as opposed to low knowledge traditional authoritarian teachers (Traditional Authoritarian) were significantly more verbally positive in their responsiveness to students. Low knowledge, non-authoritarian teachers (Traditional Non-Authoritarian) were characterized by a more teacher-oriented, direct approach to pupils as opposed to the PCM and TA groups. Table 9 presents the teacher verbalization means and standard deviations for the three knowledge-attitude profile groups. Table 10 presents the multiple discriminant function weights for the teacher verbalization categories, while figure 5 plots the centroids for each three groups on these two discriminant functions. Table 11 presents, as additional information, the achievement residual means and standard deviations for high, middle, and low I.Q. pupils with teachers in each of the three knowledge-attitude profile groups. These three teacher groups show significant differences in the achievement levels of their students. The high behavioral knowledge-positive attitude teachers (PCM) produced significantly higher achievement ($F = 3.81$, $p < .05$) from their low I.Q. pupils (I.Q.'s 50-89) and middle I.Q. pupils (I.Q.'s 90-104) than did the other two teacher knowledge-attitude groups, without significantly ($F = .13$ N.S.) hindering achievement of the high I.Q. pupils (I.Q.'s 105-135).

Other project research currently producing significant results includes research on a taxonomy of children's problems and associated intervention strategies (Cantrell, Cantrell, & Hurst, 1974) as these have been developed from support teacher casework information. Specific problem descriptions and actual case contact time logs were kept by support teachers on behalf of every case with whom they worked. The ratio of the total minutes of support teacher contact time to the percent level of each case's behavioral objectives met yielded a measure of time cost per percent unit objectives met for each case. Table 12 presents these results for all cases in one year. Statistical analyses indicated that students referred for multiple academic problems required more time per unit of objectives met ($t = 1.75$, $df = 129$, $p < .05$) than students referred for single academic problems; and students manifesting both single and multiple behavior problems for whom combinations of interventions were undertaken required significantly less ($H = 226.17$, $p < .001$) intervention time than children referred for single and multiple behavior problems for whom solely conforming interventions were undertaken. These data are the beginning of many analyses comparing the cost-effectiveness of different interventions for different problem complexes.

Research on the relationship between teacher attitudes and rate of teacher interaction with pupils (Wood & Cantrell, 1974) found that academic problem students of positive attitude teachers exhibited a higher rate of handraising and academically related classroom verbalizations than did academic problem students of negative attitude teachers ($t = 1.18$, $df = 32$, $p < .05$). It was also found that positive attitude teachers circulated about the classroom significantly more ($t = 2.29$, $df = 21$, $p < .05$) than did negative attitude teachers. Such descriptive findings are routinely fed back into the project's training program.

Some further research has been conducted on the way support teacher casework affects the case outcome for students. In the Cantrell & Cantrell (1974) paper it was reported that when case analysis and planning information was completed in the appropriate sequence, behavioral objectives for children with learning problems were met in significantly less time ($F = 5.74$, $df = 1, 101$, $p < .025$) than in cases where information and/or planning was incomplete or out of sequence. This analysis refers to the use of a structural problem-solving instrument (a decision-making heuristic taken from a flowchart format) which has been used by support teachers as their casework reporting form since the project's inception.

Additional Evidence of Project Effectiveness. As part of the implementation activities for Tennessee's Mandatory Education for the Handicapped Act (Chapter 839), the Prevention-Intervention Project was asked by the Tennessee Department of Education to train an additional 100 support teachers, provide a year-long follow-up consultation and evaluation and prepare training material suitable for similar training activities in the future. A budget of $160,000 of state monies was provided for this activity.

The taxonomic research that has been conducted thus far in the project was cited by Dr. Nicholas Hobbs in his Futures of Children (part of the final report of the Project on Classification of Exceptional Children as funded by the U. S. Department of Health, Education and Welfare) as one of the few current attempts at classification which approximated the type of profiling system recommended by Project on Classification of Exceptional Children staff.

Project activities initially relied on federal support for 98% of the cost of operation. Increased interest of local and state educational and mental health agencies have reduced the federal support to only 52%. This has beem accomplished without reducing the strong project emphasis on evaluation and research which have traditionally not received local and state support. Commitments from each of the cooperating school systems for the utilization of increased LEA funds for the coming year will continue this trend with approximately 40% of the proposed budget being from federal sources and operational independence for the support teams being achieved in each system.

The project was selected for an amendment to the ESEA Title III grant during year four to allow for initial dissemination efforts. These funds, $60,689, were initiated by USOE and requested the project to make efforts to prepare and distribute preliminary information about project activities. In this there were three national and five statewide convention presentations. Local groups representing 75% of the state school systems received presentations. Publications, professional articles, and audio-visual material preparation were begun with positive initial reactions.

TABLE 1

Means, Standard Deviations And Significance Tests For Support Teacher Training Results

Group X Test	Pre-Test		Post-Test		t-Test for Correlated Variance	t-Test for Correlated Means	Sign Test
	Mean	S.D.	Mean	S.D.			
Elementary							
Alternative Classroom Strategies Inventory	29.60	8.00	43.40	5.46	2.95**	Not Approp.	p=.002
Minnesota Teacher Attitude Inventory	73.00	23.87	82.00	15.21	3.72**	Not Approp.	p=.254
Multiple Choice Items	53.50	9.22	68.00	7.71	.55	4.51**	
Junior High							
Alternative Classroom Strategies Inventory	34.55	8.82	47.44	4.64	9.48**	Not Approp.	p=.002
Minnesota Teacher Attitude Inventory	49.78	23.87	72.44	15.88	2.68*	Not Approp.	p=.09
Multiple Choice Items	20.44	3.91	26.11	2.67	3.18*	Not Approp.	p=.002

$^{*}p < .05$
$^{**}p < .01$

TABLE 2

Experimental Vs. Control Classroom Teachers for ACSI Test Given Pre, Post Year 1, and Post Year 2.

Source	df	MS	F
Between Subjects			
Experimental Vs. Control (A)	1	77.202	.434
Subjects within Groups	62	177.706	
Within Subjects			
Tests (B)	2	136.361	9.406
Groups X Tests (AB)	2	53.267	3.674*
B x subjects within groups	124	14.495	

$^{*}p < .05$

TABLE 3

Teacher Knowledge Changes As a Function of Support Team Contacts

Source	df	MS	F
Between subjects			
Contact groupings (A)	3	561.418	3.690*
Subjects within groups	55	152.106	
Within subjects			
ACSI testings (B)	2	282.215	19.090**
AB	6	29.896	2.022
Testings x Ss within groups	110	14.782	

$^{*}p \leq .05$
$^{**}p < .001$

TABLE 4

Referrals from Experimental and Control School Teachers for Psychological Services

	Experimental		Control	
	First Grade	Second Grade	First Grade	Second Grade
Total Pupils Referred	8	14	34	29

Types of Referrals[1]

Groups	Intellectual Handicap	Perceptual Handicap	Under Achievement	Physical Handicap	Emotional Handicap	Other
Experimental	2	8	7	1	5	6
Control	12	9	34	0	10	5

[1] Note.--Discrepancies in totals are a function of some teachers referring children for more than one type of problem.

TABLE 6

Analysis of Variance for Experimental Behaviorally Discordant Target Students vs. Control Target Students for Disruptive and Non-Attentive Classroom Behavior

Source	df	MS	F
Between Subjects			
Elementary vs. Junior High (A)	1	.312	1.484
Experimental vs. Control (B)	1	2.349	11.166**
AB	1	.058	.278
Subjects within Groups	77	.210	
Within Subjects			
Observations (C)	1	.776	4.212*
AC	1	.245	1.330
BC	1	.942	5.110*
ABC	1	.308	1.672
C x Subjects within Groups	77	.184	

*p < .05
**p < .001

TABLE 5

Analysis of Variance for Experimental Behaviorally Discordant Target Children vs. Control Target Children for Disruptive and Non-Attentive Classroom Behavior

Source	df	MS	F
Between Subjects			
Experimental vs. Control (A)	1	972.907	5.081*
Subjects within Groups	29	191.470	
Within Subjects			
Observations (B)	2	432.170	1.961
Groups x Observations (AB)	2	870.302	3.950*
Bx subjects within groups	58	220.326	

*p < .05

TABLE 7

MEANS AND STANDARD DEVIATIONS FOR HIGH, MIDDLE AND LOW I.Q. PUPIL ACHIEVEMENT RESIDUALS

I.Q. Groups	Experimental			Control		
	N	Mean	S.D.	N	Mean	S.D.
Low I.Q. (50-89)						
MAT Listening	241	-0.72	6.19	112	-1.48	7.43
MAT Reading*	51	-0.49	5.08	68	-2.25	6.78
MAT Numbers	240	-1.18	7.43	109	-1.98	10.67
Middle I.Q. (90-104)						
MAT Listening	250	1.78	6.64	126	-0.96	6.76
MAT Reading	114	1.59	5.04	60	-0.27	6.48
MAT Numbers	252	1.08	8.94	125	-0.05	10.07
High I.Q. (105-135)						
MAT Listening	258	0.38	4.93	151	-1.22	5.57
MAT Reading	122	-0.34	4.39	76	-0.23	4.52
MAT Numbers	258	-0.13	7.42	151	0.36	7.55

*Differences in N's due to incorrect administration of Reading subtests across classes.

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TABLE 8

Achievement Results for Second Year First Grade Experimental and Control School Students

	EXPERIMENTAL			CONTROL			
	N	Pre-Grade 1 Mean Percentiles	Pre-Grade 2 Mean Percentiles	N	Pre-Grade 1 Mean Percentiles	Pre-Grade 2 Mean Percentiles	Testing X Groups F Tests
Listening-Word Knowledge	303	70.98	62.92	145	72.90	59.84	3.41*
Numbers	310	64.67	58.02	146	74.14	54.88	36.56**
Reading	256	69.24	60.14	147	68.46	57.09	0.86 NS

*p<.10
**p<.001

TABLE 9

Teacher Verbalization Means and Standard Deviations for ACSI-MTAI Profile Cluster Groups

	Traditional Authoritarian		Positive Contingency Managers		Traditional Non-Authoritarian	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Silence	.290	.088	.257	.108	.240	.109
Criticism	.038	.034	.029	.037	.010	.013
Giving Directions	.331	.056	.287	.085	.233	.126
Lecture	.172	.098	.190	.102	.303	.151
Asks Questions	.125	.058	.169	.076	.155	.097
Accepts/Uses Ideas	.021	.022	.036	.025	.040	.037
Praises/Encourages	.019	.014	.032	.024	.015	.012

TABLE 10

Discriminant Function Weights for Teacher Verbalization Categories

	Discriminant Functions	
	I	II
Teacher Verbalizations Canonical Correlations	.52	.44
Silence	-71.29	22.69
Criticism	-69.61	11.05
Giving Directions	-62.54	20.47
Lecture	-67.28	30.19
Asks Questions	-75.61	27.72
Accepts/Uses Ideas	-79.64	13.66
Praises/Encourages	-107.61	12.93

TABLE 11

Means and Standard Deviations for High, Middle and Low IQ Pupil Achievement Residuals

	Traditional Authoritarian	Positive Contingency Managers	Traditional Non-Authoritarian	Totals
Low IQ (50-89)				
N	73	209	47	329
Mean	-7.98	-3.33	-10.99	-5.46
S.D.	26.49	22.58	29.85	24.72
Mid IQ (90-104)				
N	73	223	38	334
Mean	3.16	6.17	-0.94	4.70
S.D.	23.32	18.57	24.22	20.45
High IQ (105-135)				
N	43	248	46	337
Mean	-0.42	-1.60	-1.58	-1.45
S.D.	11.01	13.58	16.26	13.65
Totals				
N	189	680	131	1000
Mean	-1.96	0.41	-4.77	-0.71
S.D.	22.99	18.78	24.41	20.49

Table 12

SUMMARY OF CASE RESULTS OF THE INTERVENTION TAXONOMY

	COPING				Conforming				Changing Expectancies				Combinations				Other			
	Freq.	% of Suc'ful Closures	$\bar{X}$ Time in min.	S.D.	Freq.	% of Suc'ful Closures	$\bar{X}$ Time in min.	S.D.	Freq.	% of Suc'ful Closures	$\bar{X}$ Time in min.	S.D.	Freq.	% of Suc'ful Closures	$\bar{X}$ Time in min.	S.D.	Freq.	% of Suc'ful Closures	$\bar{X}$ Time in min.	S.D.
Behavior Prob.					18	72%	321	318	1	100%	156	-	6	83%	249	231				
Academic Prob.	80	79%	338	280					3	100%	58	34	2	50%	54	65	12	92%	129	89
Other Ecological Prob.	3	100%	25	43									1	0	215	-	1	100%	91	-
Multiple Behavior Prob.					4	25%	364	382					17	29%	10	24				
Multiple Acad. Prob.	60	68%	462	422									1	0	545	-				
Beh. & Acad. Prob.													22	68%	851	589				
Beh. & Other Ecol. Prob.																	2	100%	250	28
Acad. & Other Ecol. Prob.	1	0	867	-									6	83%	83	56	11	100%	28	76
Beh., Acad. & Other Ecol. Prob.													9	67%	988	1282	19	100%	20	43
Grand Total	144	74%	387	353	22	64%	329		4	100%	83		64	58%	479	708	45	97%	63	99

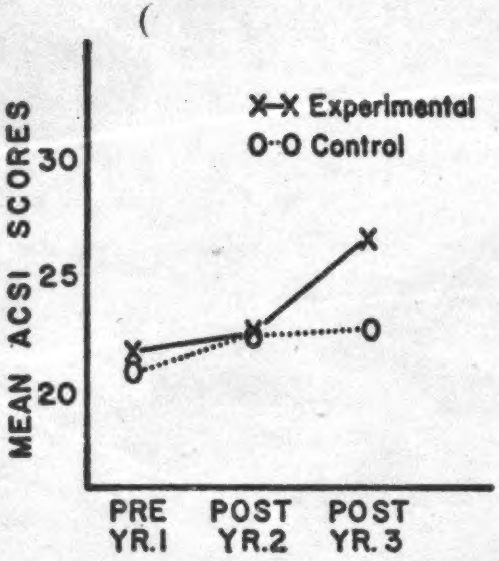

Fig. 1. Behavioral knowledge scores attained by experimental and control teachers.

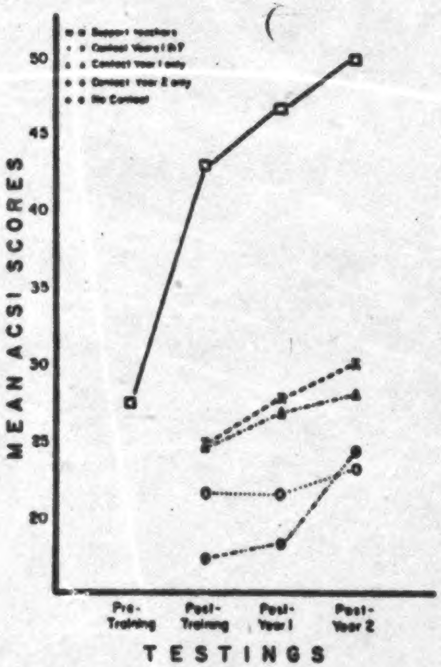

Fig. 2. Support teachers and classroom teachers' behavioral knowledge as a function of support teacher - classroom teacher contacts.

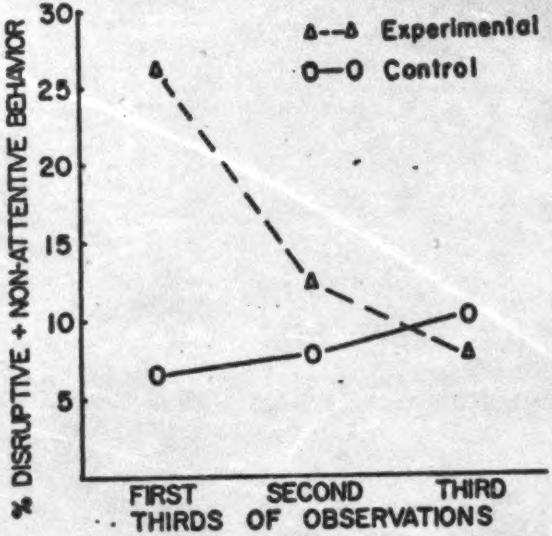

Fig. 3. Classroom observation results for behaviorally disordered target children vs. control school target children.

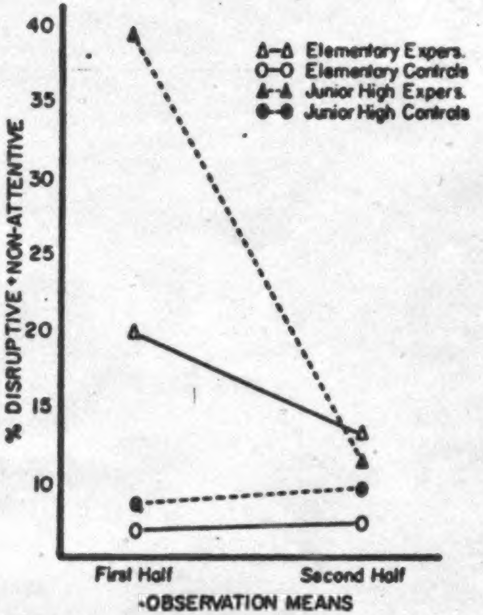

Fig. 4. Classroom observation results for target cases vs. control school observations.

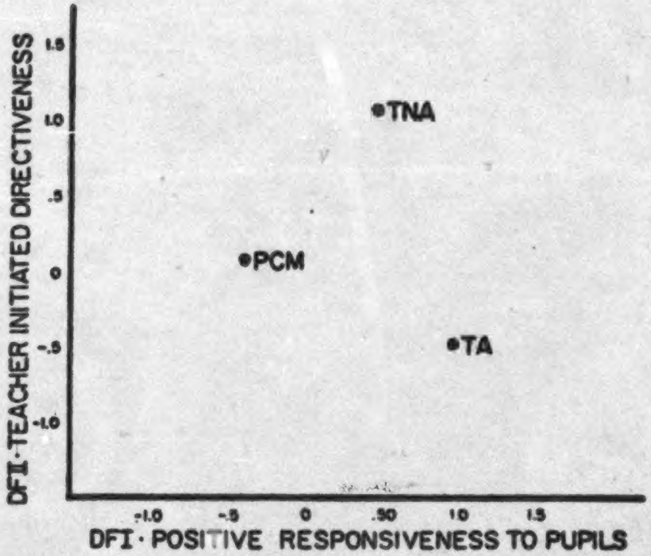

Fig. 5. Multiple discriminant analysis centroids for teacher knowledge and attitude profile groups.

F. Publications and Materials

If locally developed publications are available for dissemination, give title, description and cost.

Cantrell, M. L. Academic programming in the re-education school. Unpublished manuscript, 1971. Free.

Cantrell, M. L. A procedure for directing the writing of contingency contracts. Unpublished manuscript, 1973. Available from Prevention-Intervention Project. 50¢

Cantrell, M. L. The heuristic: An explanation. Unpublished manuscript, 1974. 20¢

Cantrell, R. P., Cantrell, M. L., Huddleston, C. M. & Woolridge, R. L. Application of contingency contracts to four school attendance problems. Unpublished manuscript, 1967. 90¢

Cantrell, R. P. & Cantrell, M. L. A systematic approach to solving children's problems utilizing a heuristic model. Paper presented at the meeting of the Mid-South Educational Research Association, New Orleans, November, 1974. (a) 20¢

Cantrell, R. P. & Cantrell, M. L. Preventive mainstreaming: Impact of a supportive services program on low and middle I. Q. pupils in public school first grades. Manuscript submitted for publication, 1974. (b) 35¢

Cantrell, R. P. & Cantrell, M. L. Heuristic report form: A record of ecological analysis and intervention enactment. Unpublished manuscript, 1974. 75¢

Cantrell, R. P. & Cantrell, M. L. A taxonomic investigation of children's problems and correlated intervention strategies: An empirical approach to classification. Unpublished manuscript, 1974. (c) 40¢

Cantrell, R. P. & Cantrell, M. L. Systematic decision making and children's problems: A heuristic attempt. Unpublished manuscript, 1970. (d) 40¢

Cantrell, R. P., Cantrell, M. L. & Hurst, B. A taxonomy of intervention strategies used to maintain exceptional children within regular education classrooms. Paper presented at the meeting of the Mid-South Educational Research Association, New Orleans, November, 1974. 40¢

Cantrell, R. P., Stenner, A. J. & Katzenmeyer, W. G. Prediction of teacher knowledge and attitude profiles from classroom teaching statements. Paper presented at the meeting of the American Educational Research Association, Washington, D. C., April, 1975. 30¢

Cantrell, R. P., Wood, J. L & Nichols, C. A. Teacher knowledge of behavior principles and classroom teaching patterns. Paper presented at the meeting of the American Educational Research Association, Chicago, April, 1974. 75¢

Lewis, B. L. Program relevant evaluation: An overview. Unpublished manuscript, 1974. 35¢

Prevention-Intervention Project. Prevention-Intervention project final report, 1972. Unpublished manuscript, 1972. $2.25

Prevention-Intervention Project. Prevention-Intervention project final report, 1973. Unpublished manuscript, 1973. $2.50

Prevention-Intervention Project. Prevention-Intervention project final report, 1974. Unpublished manuscript, 1974. $2.60

Prevention-Intervention Project. Prevention-Intervention project magazine. January, 1975, Vol. 1. 35¢

Prevention-Intervention Project. Prevention-Intervention project magazine. April, 1975, Vol. 2. 35¢

Prevention-Intervention Project. A prevention-intervention model for school age children with problems. Unpublished manuscript, 1974, available from Prevention-Intervention Project. 10¢

MacKay, L. Positive parenting. Unpublished manuscript, 1973. 10¢

MacKay, L. & Otey, B. G. Learning to teach, learning to read. Unpublished manuscript, 1974. $1.50

MacKay, L. & Steranka, N. D. Sample case study booklet of typical interventions in elementary school settings. Unpublished manuscript, 1973. 50¢

Rousseau, F. Behavioral programming in the re-education school. Unpublished manuscript, 1971. Free

Steranka, N. D. Positional words test. Unpublished manuscript, 1974. (a) 10¢

Steranka, N.DD. Math criterion referenced test for junior high. Unpublished manuscript, 1974. (b) 35¢

Wood, J. L. & Cantrell, R. P. Classroom interaction of teachers and problem children as related to the results of a teacher attitude test. Paper presented at the meeting of the Mid-South Educational Research Association, New Orleans, November, 1974. 25¢